

AD-A144 650

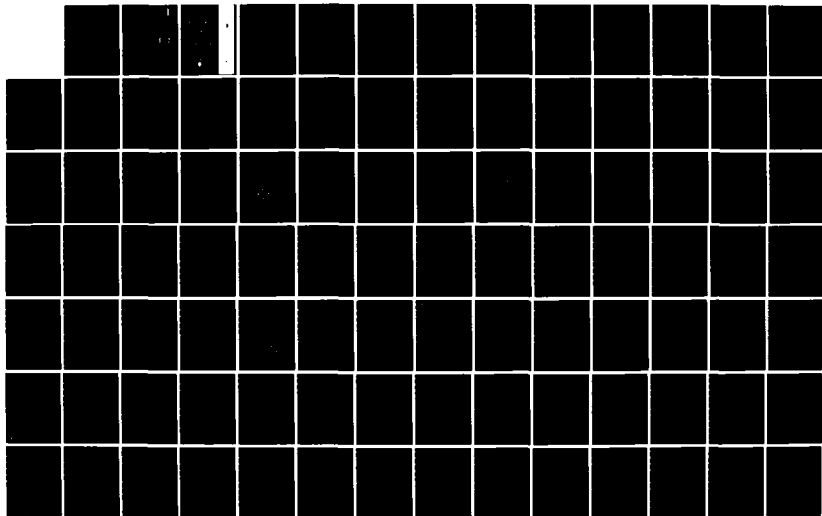
EAST COAST REGIONAL PETROLEUM RESERVE (RPR) VOLUME 2  
POTENTIAL STORAGE SI. (U) ARMY ENGINEER DIV HUNTSVILLE  
AL R E SHANNON ET AL. 30 SEP 80 HNDTR-80-45-SP-VOL-2

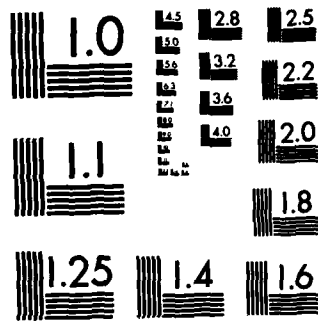
1/3

UNCLASSIFIED

F/G 21/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

PHOTOGRAPH THIS SHEET

AD-A144 650

DTIC ACCESSION NUMBER

LEVEL

INVENTORY

Rpt. No. HNDTR-80-45-SP, Vol. II

DOCUMENT IDENTIFICATION

30 Sep '80

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

DISTRIBUTION STATEMENT

ACCESSION FOR

NTIS GRA&I

DTIC TAB

UNANNOUNCED

JUSTIFICATION

BY

DISTRIBUTION /

AVAILABILITY CODES

DIST

AVAIL AND/OR SPECIAL

A/1

DISTRIBUTION STAMP

DTIC  
ELECTE  
AUG 28 1984  
D

DATE ACCESSIONED

DATE RETURNED

REGISTERED OR CERTIFIED NO.

84 08 27 265

DATE RECEIVED IN DTIC

PHOTOGRAPH THIS SHEET AND RETURN TO DTIC-DDAC

DOCUMENT PROCESSING SHEET

PREVIOUS EDITION MAY BE USED UNTIL  
STOCK IS EXHAUSTED.

# REGIONAL PETROLEUM RESERVE EAST COAST

## VOLUME II

### POTENTIAL STORAGE SITES CONCEPT DESIGN



**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited



U.S. ARMY  
CORPS OF ENGINEERS  
HUNTSVILLE DIVISION

AD-A144 650

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM									
1. REPORT NUMBER HNDTR-80-45-SP VOL II	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER									
4. TITLE (and Subtitle) REGIONAL PETROLEUM RESERVE EAST COAST. VOL II. POTENTIAL STORAGE SITES CONCEPT DESIGN.		5. TYPE OF REPORT & PERIOD COVERED									
		6. PERFORMING ORG. REPORT NUMBER									
7. AUTHOR(s) ROBERT E. SHANNON, RICHARD M. WYSKIDA, JAMES D. JOHANNES		8. CONTRACT OR GRANT NUMBER(s)									
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army Engineers Division, Huntsville P.O. Box 1600, West Station Huntsville, AL 35807-4301		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS									
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE 30 September 1980									
		13. NUMBER OF PAGES 197 PGS									
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)  UNCLASSIFIED									
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE									
16. DISTRIBUTION STATEMENT (of this Report)  DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED.											
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)											
18. SUPPLEMENTARY NOTES MANAGERIAL AND TECHNICAL SUPPORT WAS PROVIDED BY THE FOLLOWING ELEMENTS OF THE U.S. ARMY CORPS OF ENGINEERS: HUNTSVILLE DIVISION, NEW ENGLAND DIVISION, NORTH ATLANTIC DIVISION, SOUTH ATLANTIC DIVISION, AND WATERWAYS EXPERIMENT STATION.											
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  <table border="0"> <tr> <td>PETROLEUM PRODUCTS</td> <td>RESERVES (ENERGY)</td> <td>SITE SELECTION</td> </tr> <tr> <td>STORAGE</td> <td>FUEL OIL</td> <td>NEW ENGLAND</td> </tr> <tr> <td>NEW YORK</td> <td>NEW JERSEY</td> <td></td> </tr> </table>			PETROLEUM PRODUCTS	RESERVES (ENERGY)	SITE SELECTION	STORAGE	FUEL OIL	NEW ENGLAND	NEW YORK	NEW JERSEY	
PETROLEUM PRODUCTS	RESERVES (ENERGY)	SITE SELECTION									
STORAGE	FUEL OIL	NEW ENGLAND									
NEW YORK	NEW JERSEY										
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  VOLUME I PRESENTS A DETAILED DESCRIPTION OF THE PROCEDURES AND RESULTS OF A SITE IDENTIFICATION AND EVALUATION PROCESS UNDERTAKEN IN SUPPORT OF THE REGIONAL AND NONCONTIGUOUS PETROLEUM RESERVE (RPR) PROPOSAL. THE CRITICAL FACTORS AND RATING GUIDANCE USED FOR INITIAL SCREENING ARE DESCRIBED IN APPENDIX B. POTENTIAL SITES, ACCEPTED DURING THE INITIAL SCREENING, WERE SUBJECTED TO A FINAL SCREENING WHERE THEY WERE POINT-SCORED ON THE BASIS OF AN EVALUATION OF SPECIFIC CHARACTERISTICS. THE SCORING SYSTEM, AS ESTABLISHED											

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

BY THE REVIEW AND SUMMATION TEAM, IS DESCRIBED IN APPENDIX C. SITE SCORES AND RANKING UNDER EACH OF THE THREE STORAGE MEDIA ARE SHOWN IN APPENDIX D.

VOLUME II PROVIDES CONCEPTUAL DESIGN DRAWINGS, CONSTRUCTION COST ESTIMATES, AND A LIFE CYCLE COST ECONOMIC ANALYSIS CONDUCTED TO IDENTIFY, AND QUANTIFY, UNIQUE ECONOMIC ADVANTAGES THAT MAY BE ATTRIBUTABLE TO THE CANDIDATE SITES.

VOLUME III PROVIDES THREE RELATED ENGINEERING STUDIES: (1) DEVELOPMENT OF CONDUCTIVE AND CONVECTIVE HEAT TRANSFER CONCEPTS FOR NO. 6 RESIDUAL OIL. (2) FEASIBILITY OF HEATING RESIDUAL OIL STORAGE FACILITIES WITH SOLAR ENERGY. (3) AN ANALYSIS ON LEASE VS PURCHASE OF STORAGE FACILITIES.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

HNDTR-80-45-SP

EAST COAST  
REGIONAL PETROLEUM RESERVE  
(RPR)

VOLUME II  
POTENTIAL STORAGE SITES  
CONCEPT DESIGN

Prepared by

US Army Corps of Engineer  
Huntsville Division

30 September 1980

## TABLE OF CONTENTS

CHAPTER		PAGE
1	Conceptual Design Drawings for Potential Storage Sites . . . . .	1
2	Construction Cost Estimates for Potential Storage Sites . . . . .	67
3	Life Cycle Cost, Economic Analysis . . . . .	127
APPENDIX		
A	Life Cycle Cost, Yearly Analysis . . . . .	A-1



FOREWORD

Identification and evaluation of potential storage sites for the Regional Petroleum Reserve were completed and submitted to DOE in May 1980 as Volume I of a 3-volume set. In support of Volume I, concept designs, construction cost estimates, and life cycle costs have been prepared and comprise Volume II. Volume III contains three related engineering studies:

- (1) Development of conductive and convective heat transfer concepts for No. 6 residual oil
- (2) Feasibility of heating residual oil storage facilities with solar energy
- (3) An analysis on lease vs purchase of storage facilities

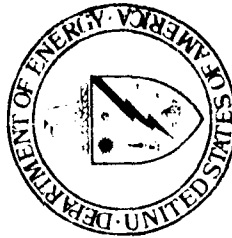
HNDTR-80-45-SP

CHAPTER 1  
CONCEPTUAL DESIGN DRAWINGS  
FOR  
POTENTIAL STORAGE SITES

CORPS OF ENGINEERS

U.S. ARMY

REGIONAL AND NONCONTIGUOUS PETROLEUM  
RESERVE STORAGE PROJECT (RPR)  
EAST COAST CANDIDATE SITES  
CONCEPTUAL DESIGN DRAWINGS

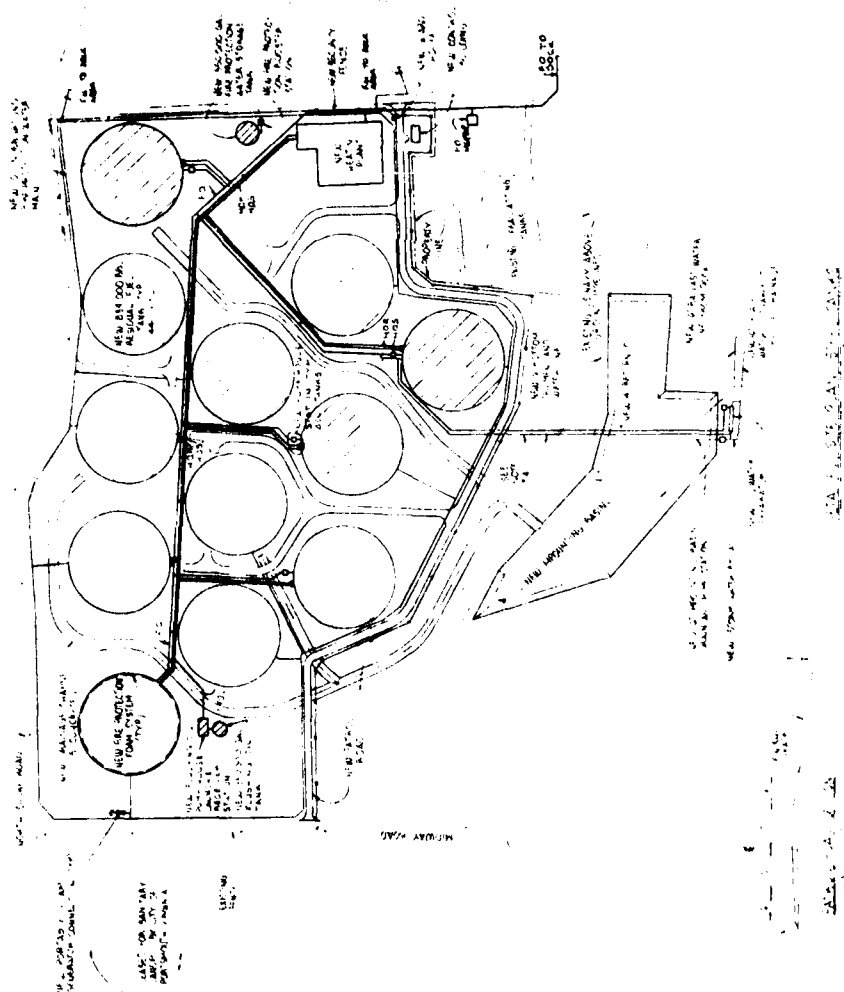


DEPARTMENT OF ENERGY  
WASHINGTON, D C

U.S. ARMY ENGINEER DIVISION, HUNTSVILLE  
CORPS OF ENGINEERS  
HUNTSVILLE, ALABAMA







57.00

1. RECEIVED 10/10/10  
2. RECEIVED 10/10/10  
3. RECEIVED 10/10/10  
4. RECEIVED 10/10/10  
5. RECEIVED 10/10/10  
6. RECEIVED 10/10/10  
7. RECEIVED 10/10/10  
8. RECEIVED 10/10/10  
9. RECEIVED 10/10/10  
10. RECEIVED 10/10/10

EAST COAST PORTSMOUTH, VA 10 MM STORAGE FACILITY DETAILED SITE PLAN STEEL TANKS	EAST COAST PORTSMOUTH, VA 10 MM STORAGE FACILITY DETAILED SITE PLAN STEEL TANKS
---	---

100



[illegible]



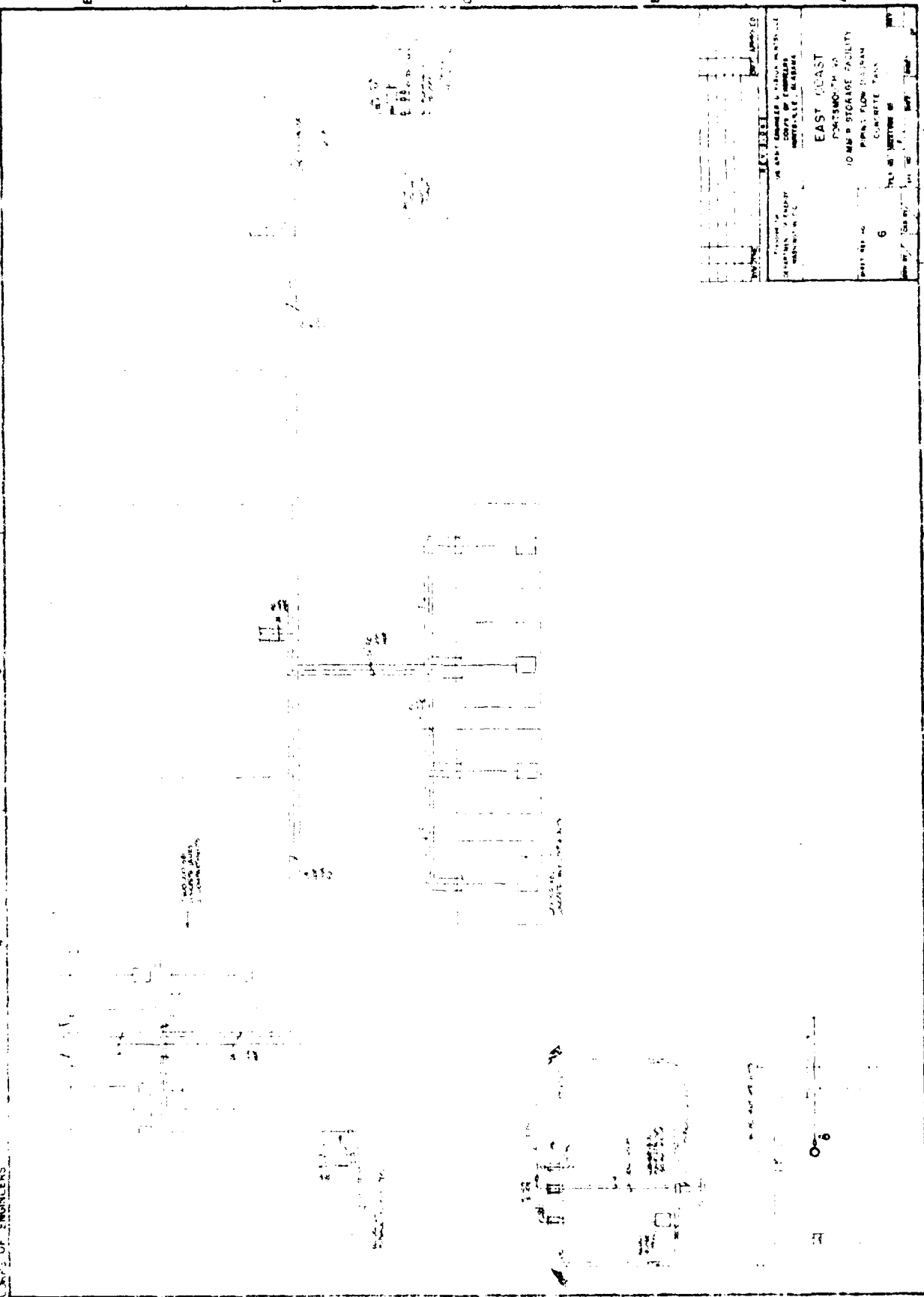
U.S. ARMY

2

3

4

COMP. OF ENGINEERS

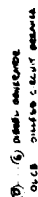


2

3

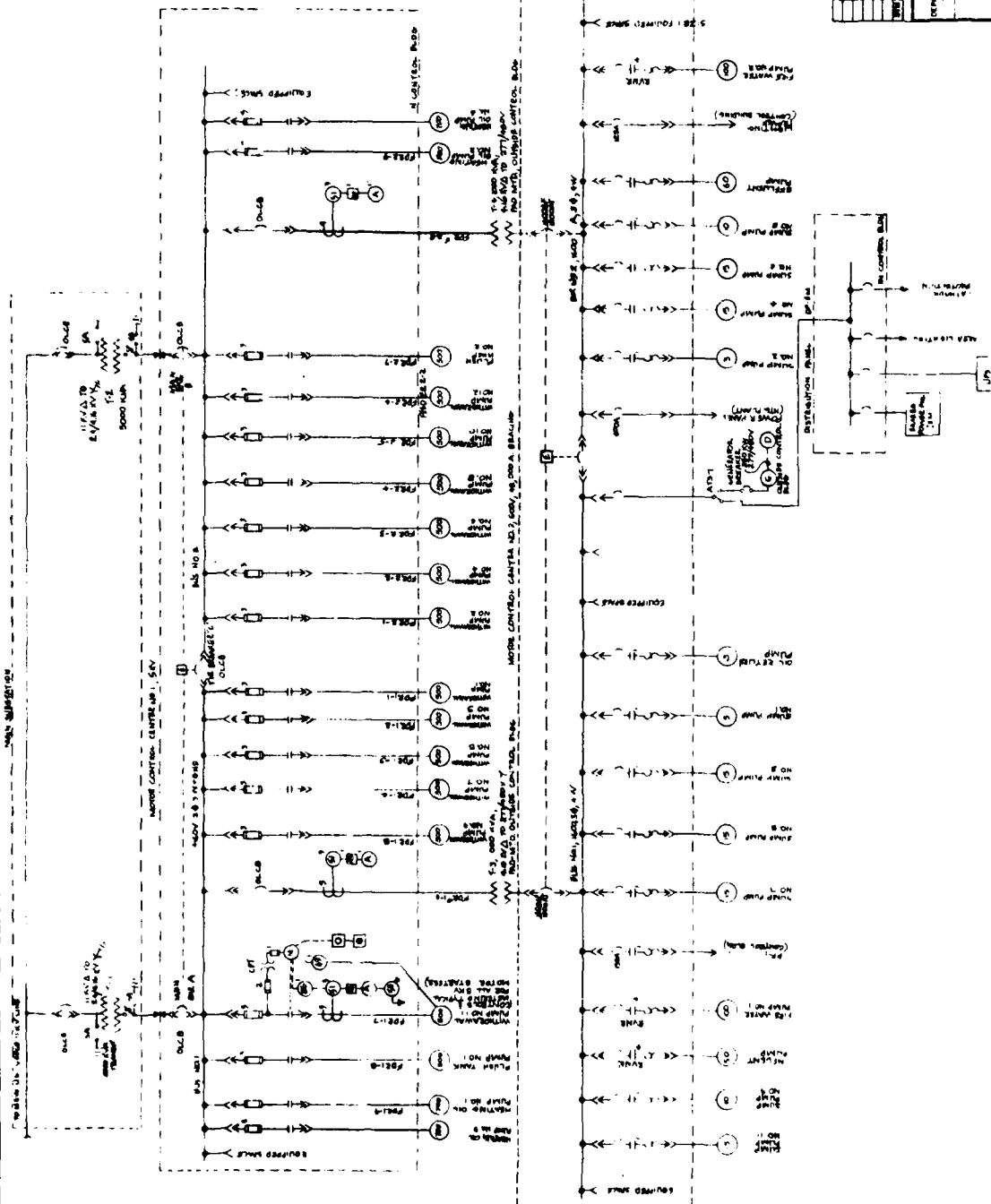
4

5



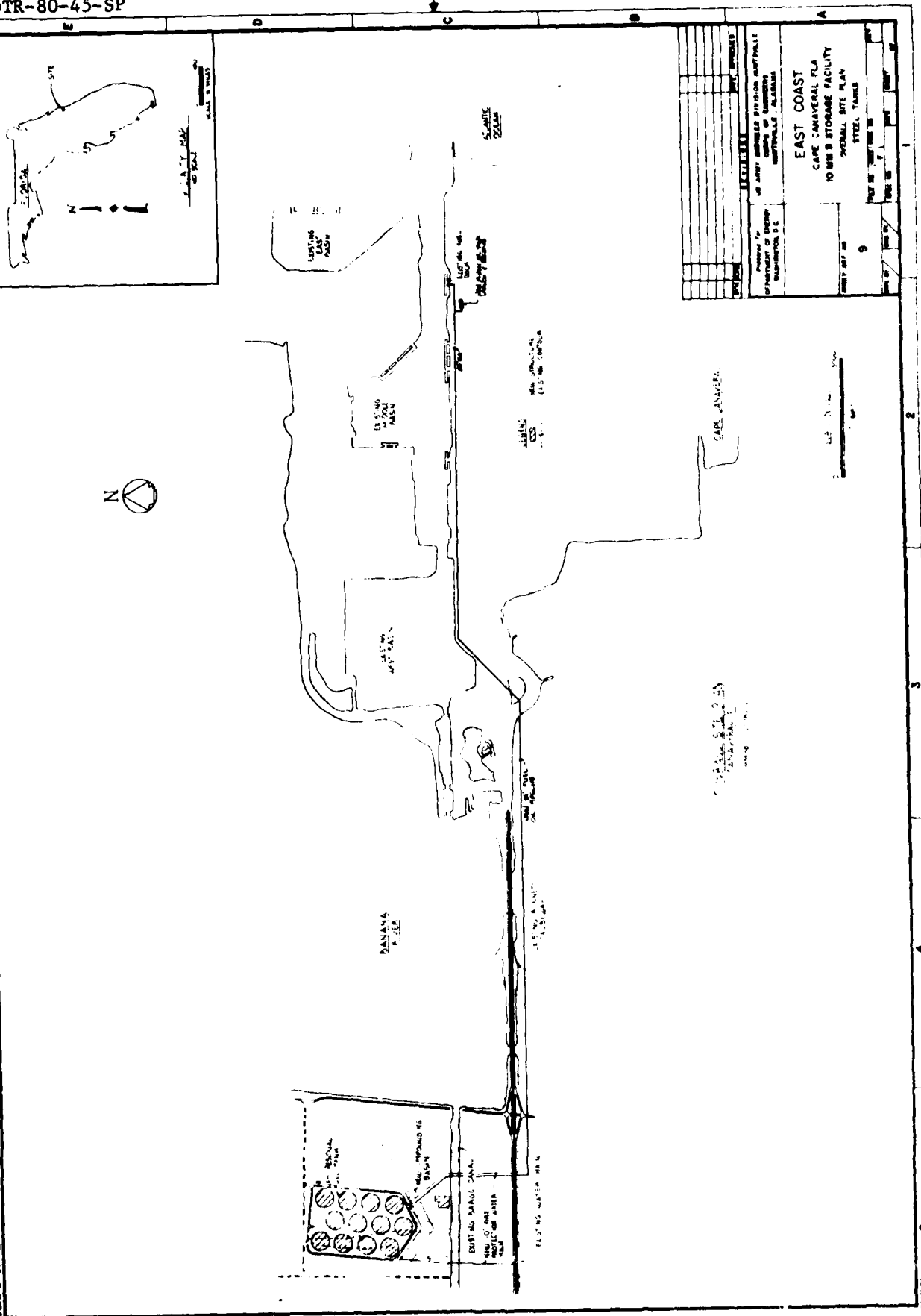
1. TRANSFORMER  
 2. INDUCTIVE  
 3. INDUCTIVE  
 4. INDUCTIVE  
 5. INDUCTIVE  
 6. INDUCTIVE  
 7. INDUCTIVE  
 8. INDUCTIVE  
 9. INDUCTIVE  
 10. INDUCTIVE  
 11. INDUCTIVE  
 12. INDUCTIVE  
 13. INDUCTIVE  
 14. INDUCTIVE  
 15. INDUCTIVE  
 16. INDUCTIVE  
 17. INDUCTIVE  
 18. INDUCTIVE  
 19. INDUCTIVE  
 20. INDUCTIVE  
 21. INDUCTIVE  
 22. INDUCTIVE  
 23. INDUCTIVE  
 24. INDUCTIVE  
 25. INDUCTIVE  
 26. INDUCTIVE  
 27. INDUCTIVE  
 28. INDUCTIVE  
 29. INDUCTIVE  
 30. INDUCTIVE  
 31. INDUCTIVE  
 32. INDUCTIVE  
 33. INDUCTIVE  
 34. INDUCTIVE  
 35. INDUCTIVE  
 36. INDUCTIVE  
 37. INDUCTIVE  
 38. INDUCTIVE  
 39. INDUCTIVE  
 40. INDUCTIVE  
 41. INDUCTIVE  
 42. INDUCTIVE  
 43. INDUCTIVE  
 44. INDUCTIVE  
 45. INDUCTIVE  
 46. INDUCTIVE  
 47. INDUCTIVE  
 48. INDUCTIVE  
 49. INDUCTIVE  
 50. INDUCTIVE  
 51. INDUCTIVE  
 52. INDUCTIVE  
 53. INDUCTIVE  
 54. INDUCTIVE  
 55. INDUCTIVE  
 56. INDUCTIVE  
 57. INDUCTIVE  
 58. INDUCTIVE  
 59. INDUCTIVE  
 60. INDUCTIVE  
 61. INDUCTIVE  
 62. INDUCTIVE  
 63. INDUCTIVE  
 64. INDUCTIVE  
 65. INDUCTIVE  
 66. INDUCTIVE  
 67. INDUCTIVE  
 68. INDUCTIVE  
 69. INDUCTIVE  
 70. INDUCTIVE  
 71. INDUCTIVE  
 72. INDUCTIVE  
 73. INDUCTIVE  
 74. INDUCTIVE  
 75. INDUCTIVE  
 76. INDUCTIVE  
 77. INDUCTIVE  
 78. INDUCTIVE  
 79. INDUCTIVE  
 80. INDUCTIVE  
 81. INDUCTIVE  
 82. INDUCTIVE  
 83. INDUCTIVE  
 84. INDUCTIVE  
 85. INDUCTIVE  
 86. INDUCTIVE  
 87. INDUCTIVE  
 88. INDUCTIVE  
 89. INDUCTIVE  
 90. INDUCTIVE  
 91. INDUCTIVE  
 92. INDUCTIVE  
 93. INDUCTIVE  
 94. INDUCTIVE  
 95. INDUCTIVE  
 96. INDUCTIVE  
 97. INDUCTIVE  
 98. INDUCTIVE  
 99. INDUCTIVE  
 100. INDUCTIVE

NOTE: 1. 514 500000 116 0/10 100



7	APPROVED FOR DEPARTMENT OF ENERGY WASHINGTON, D.C.	<b>EAST COAST</b>	OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA IN RE: EAST COAST STEEL TANKS CORP. OF AMERICA HATFIELD, ALABAMA	FILED	NOV 1980
---	--	-------------------	---	-------	----------

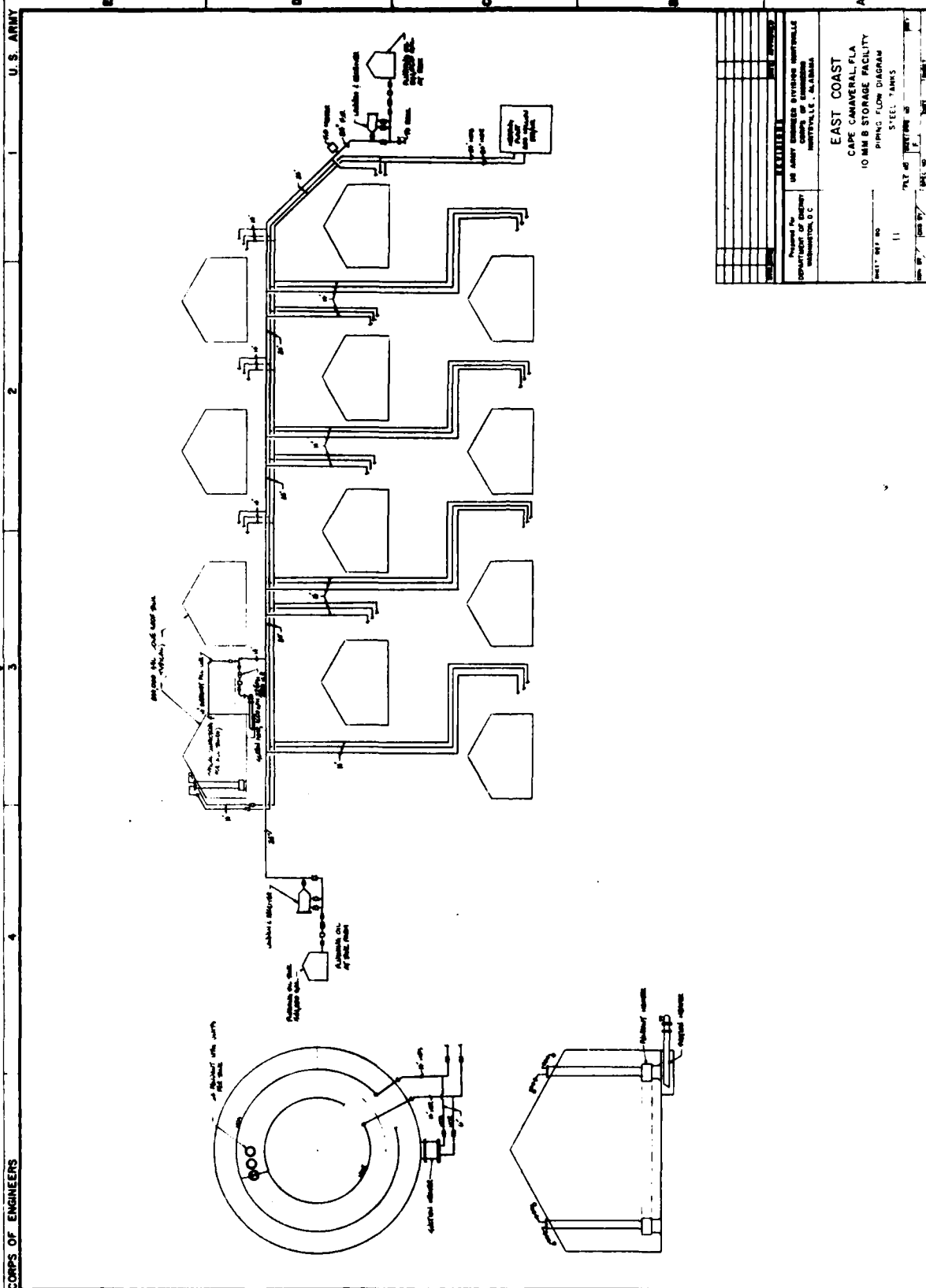






U.S. ARMY

CORPS OF ENGINEERS





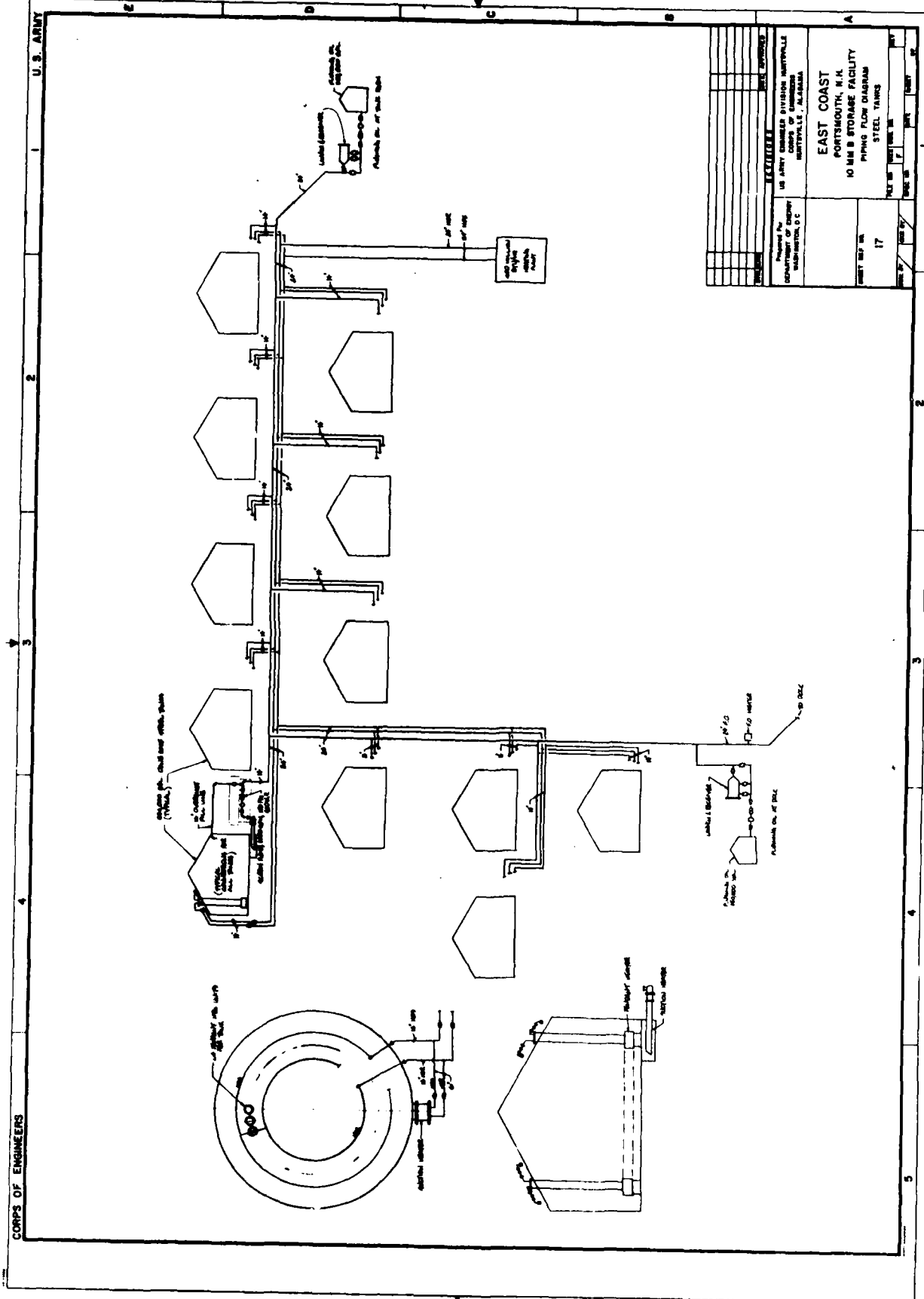




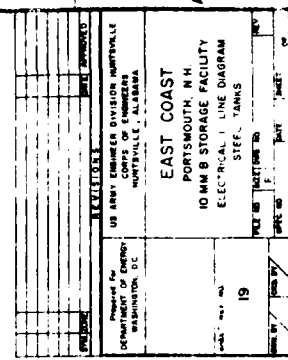










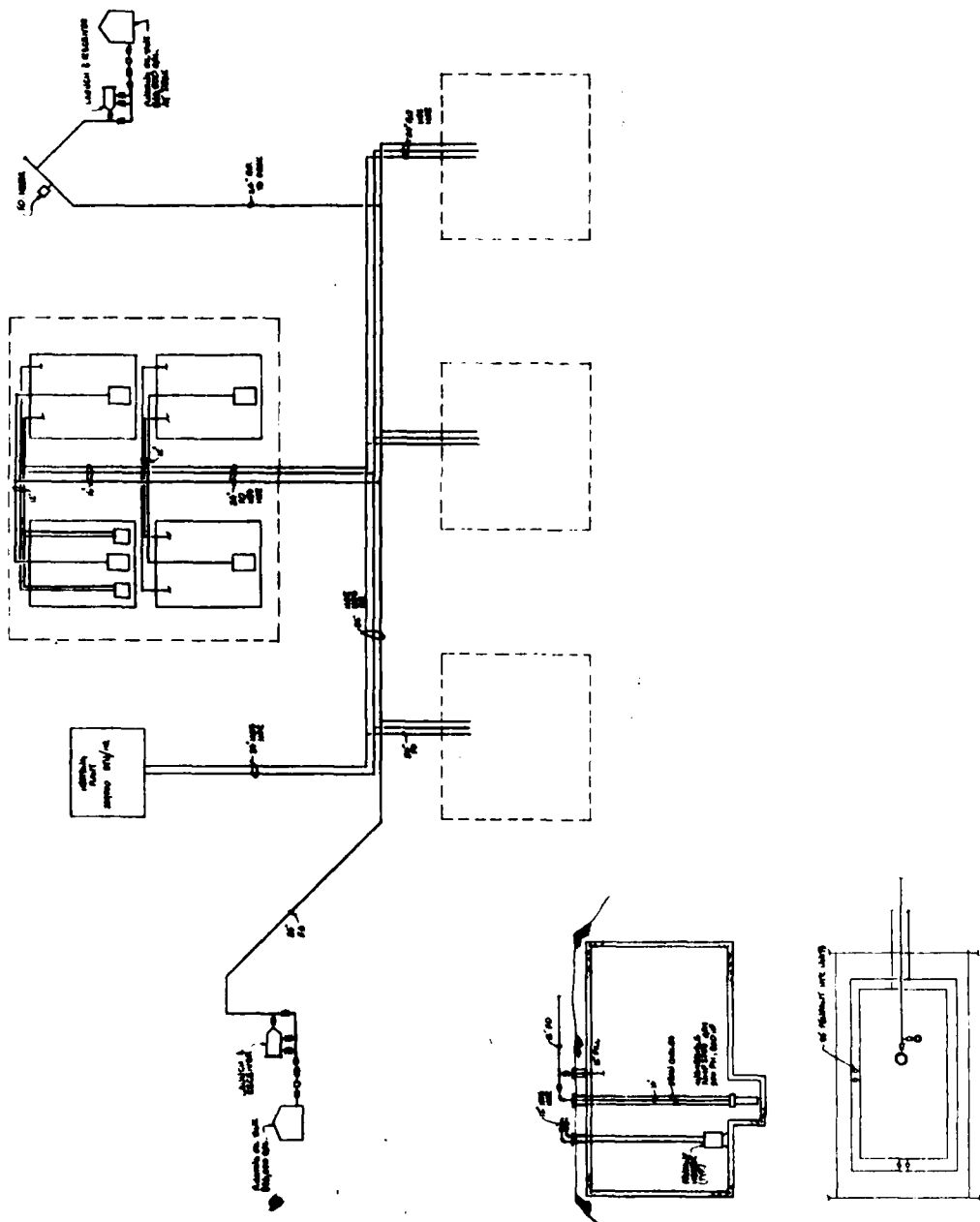




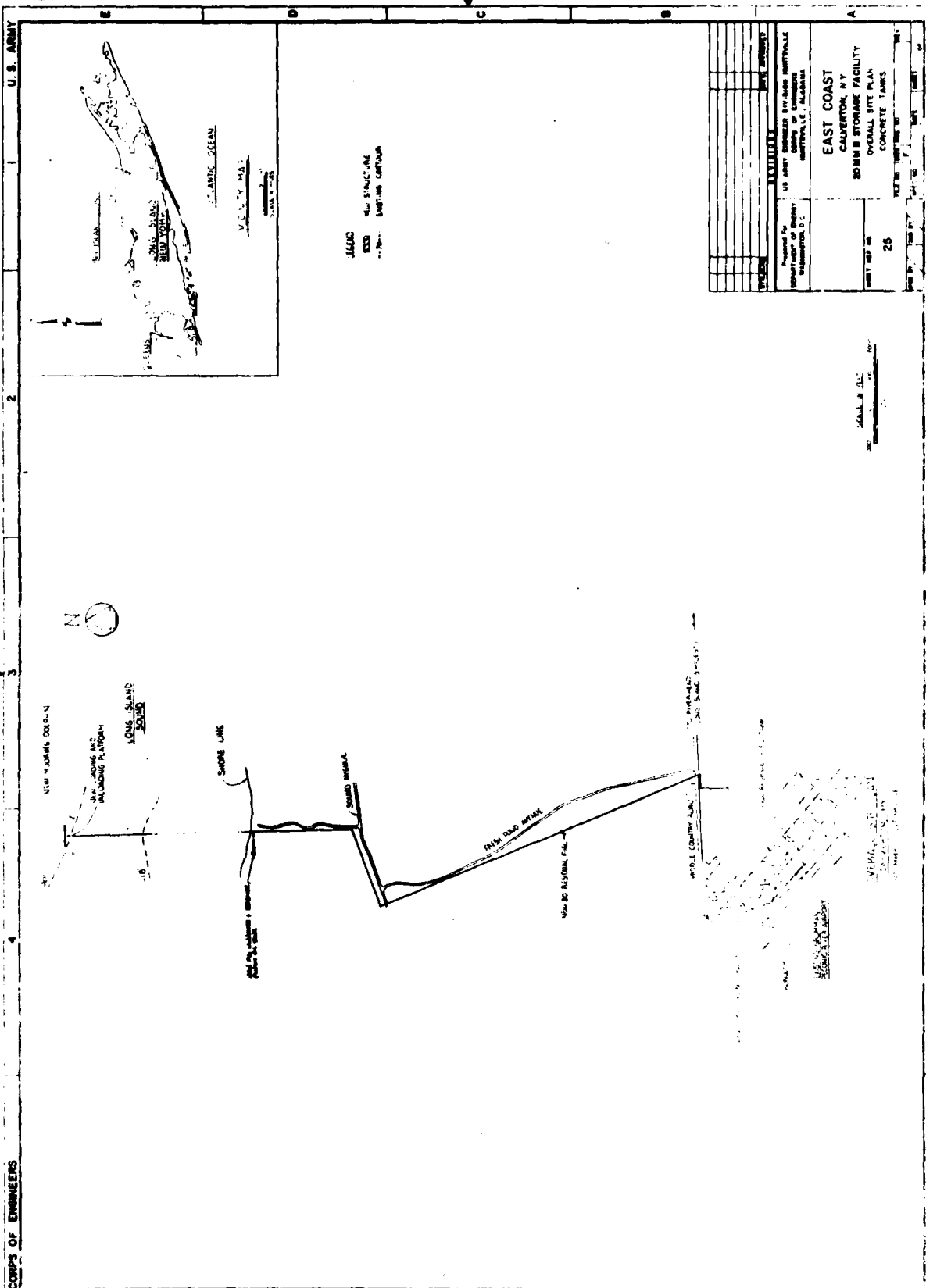






[illegible]







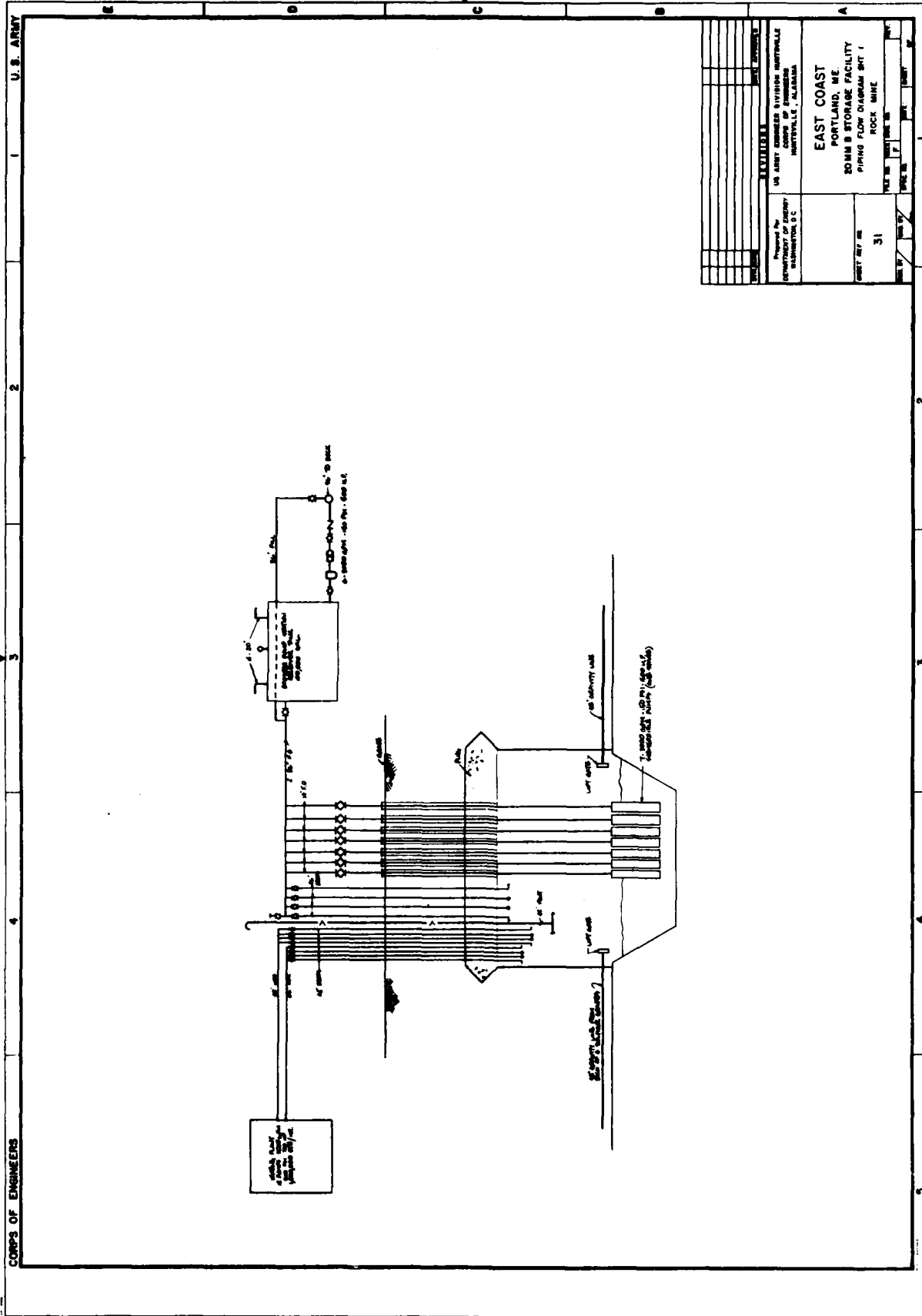








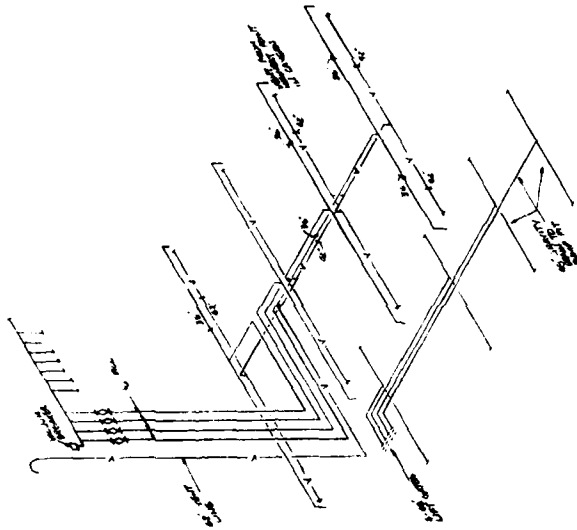




Prepared by US ARMY ENGINEER DIVISION HUNTERVILLE CORPS OF ENGINEERS HUNTERVILLE, ALABAMA	
EAST COAST PORTLAND, ME 30MM B STORAGE FACILITY PIPING FLOW DIAGRAM SHEET 1 ROCK MINE	
SHEET NO. 31	TOTAL SHEETS 31

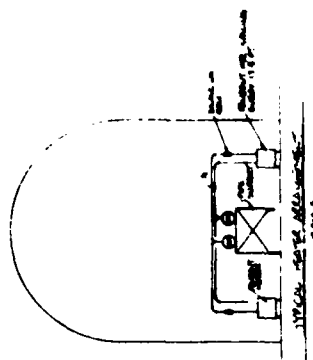
U.S. ARMY

CORPS OF ENGINEERS



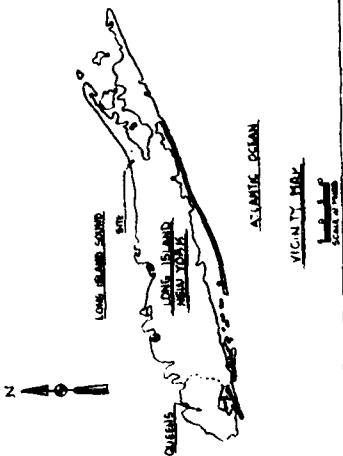
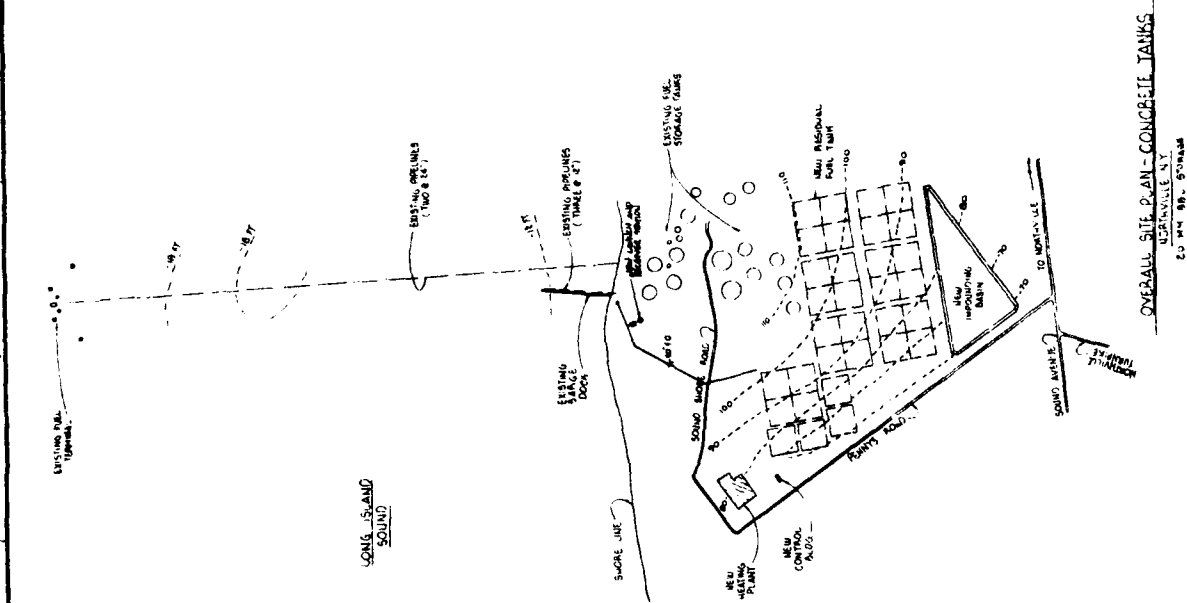
2151-A. 11/11/80  
FOR JAW'S FILE & GENERAL VENT SYSTEMS

Prepared by DEPARTMENT OF DEFENSE HEADQUARTERS WASHINGTON, D.C.		FOR ARMY ENGINEER DIVISION CORPS OF ENGINEERS WASHINGTON, D.C.	
EAST COAST PORTLAND, ME 20 MM B STORAGE FACILITY PIPING FLUX DIAGRAM SHIT 2 ROCK MINE		32 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	

[illegible]



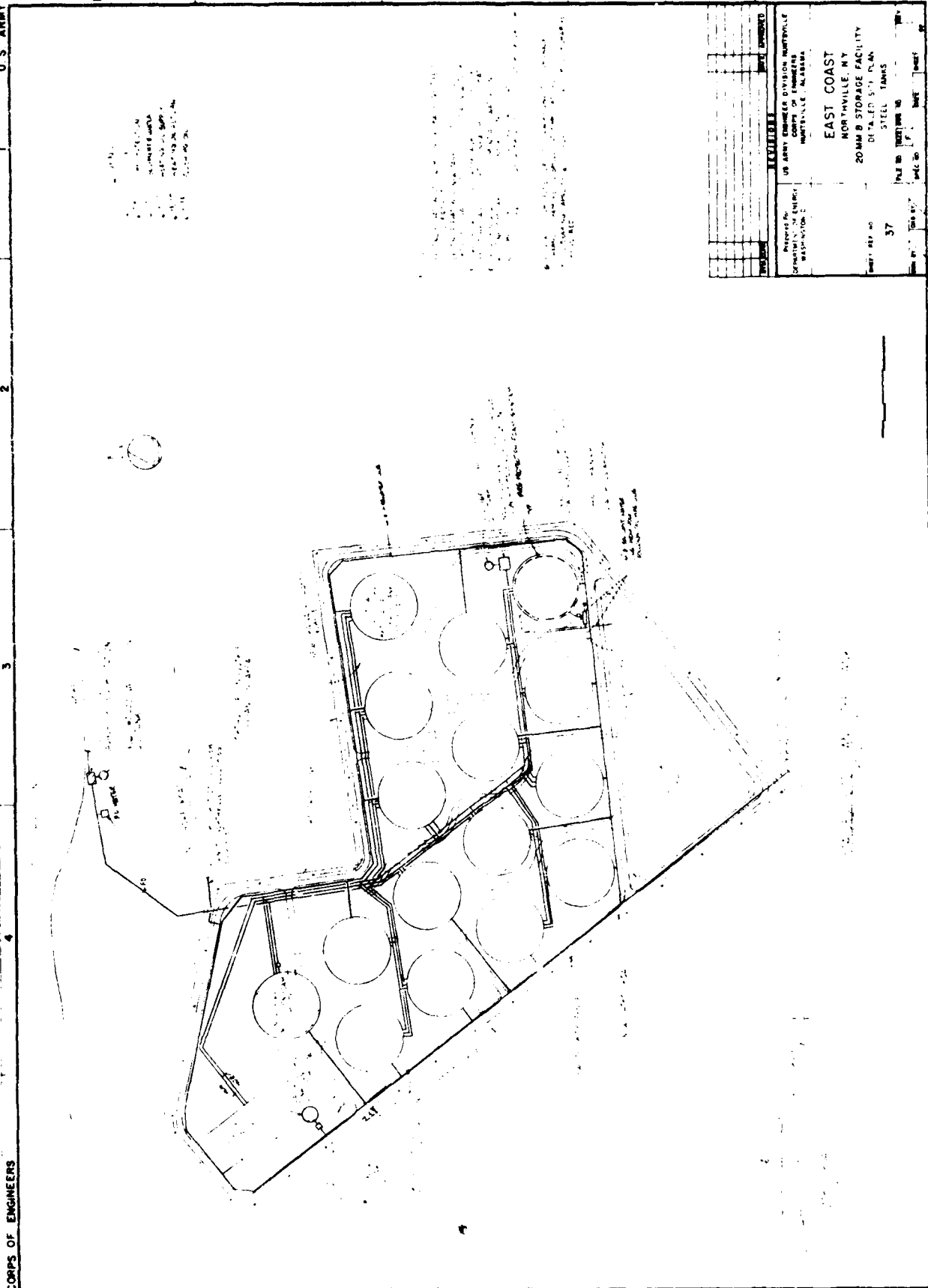




Equal to  
NEW STRUCTURE  
EXISTING CONTINUATION

OVERALL SITE PLAN - CONCRETE TANKS  
URSAVILLE NY  
20 MAY 98, 500448

[illegible]







U.S. ARMY

CORPS OF ENGINEERS

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

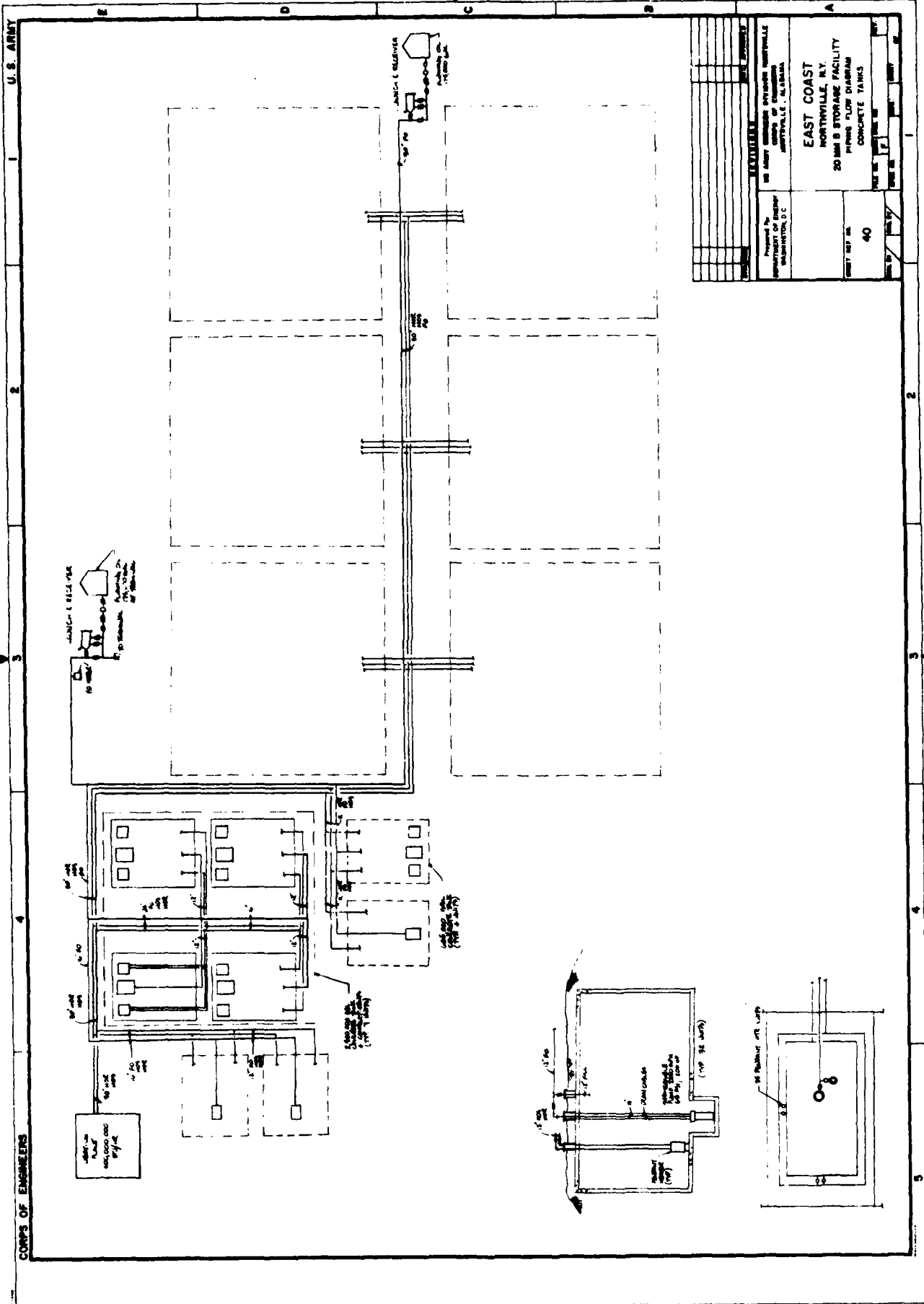
292

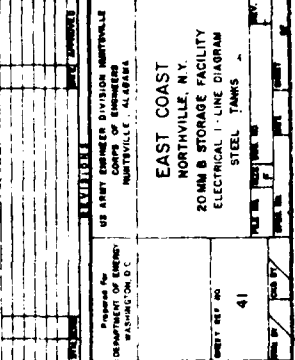
293

294

295

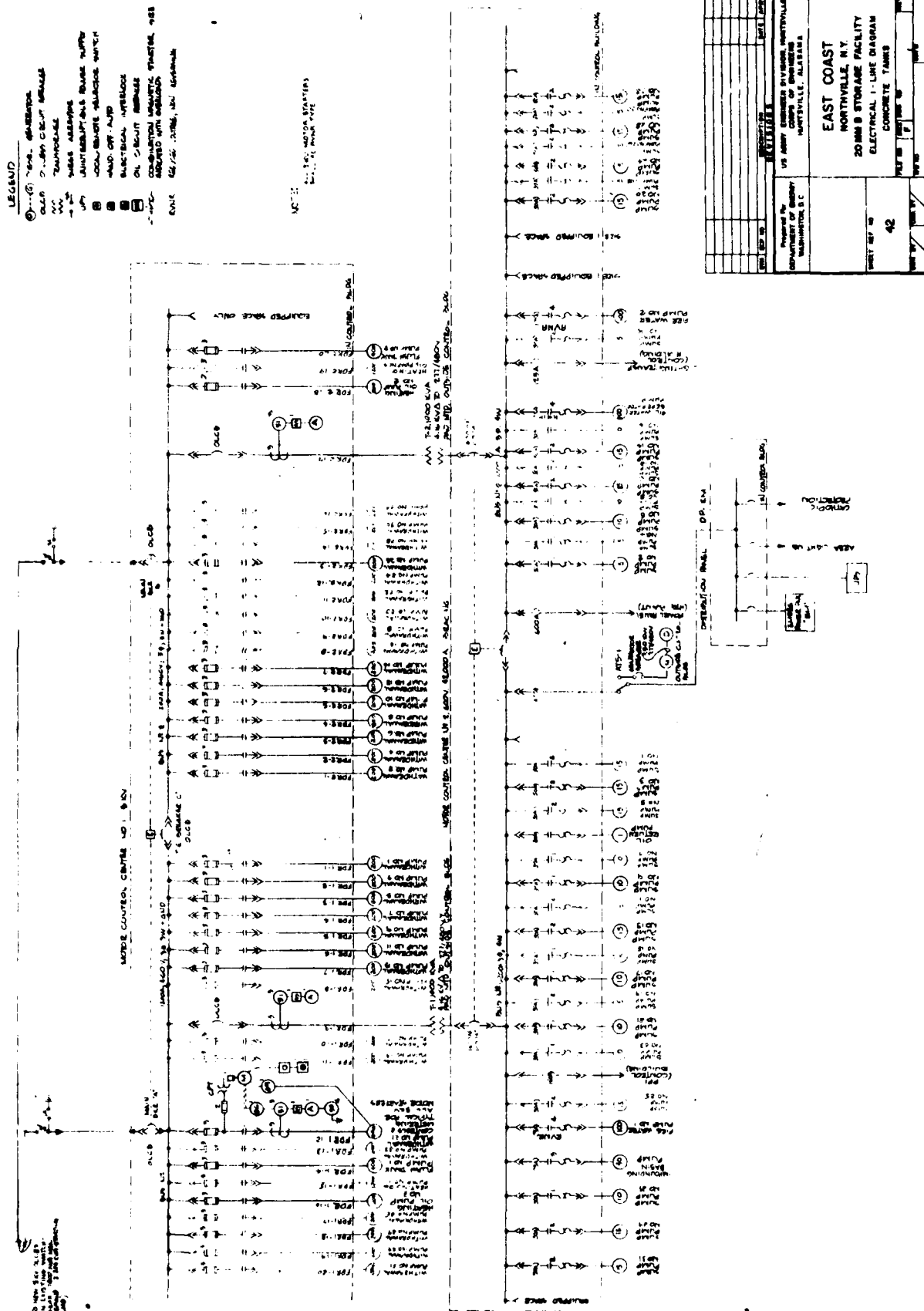
29

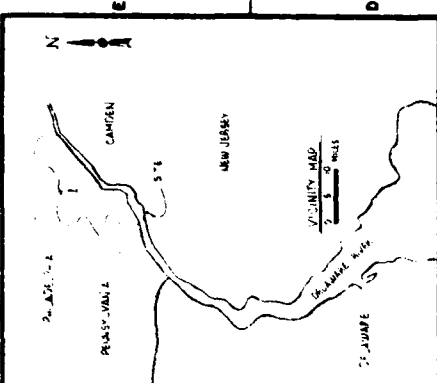




U. S. ARMY

CORPS OF ENGINEERS





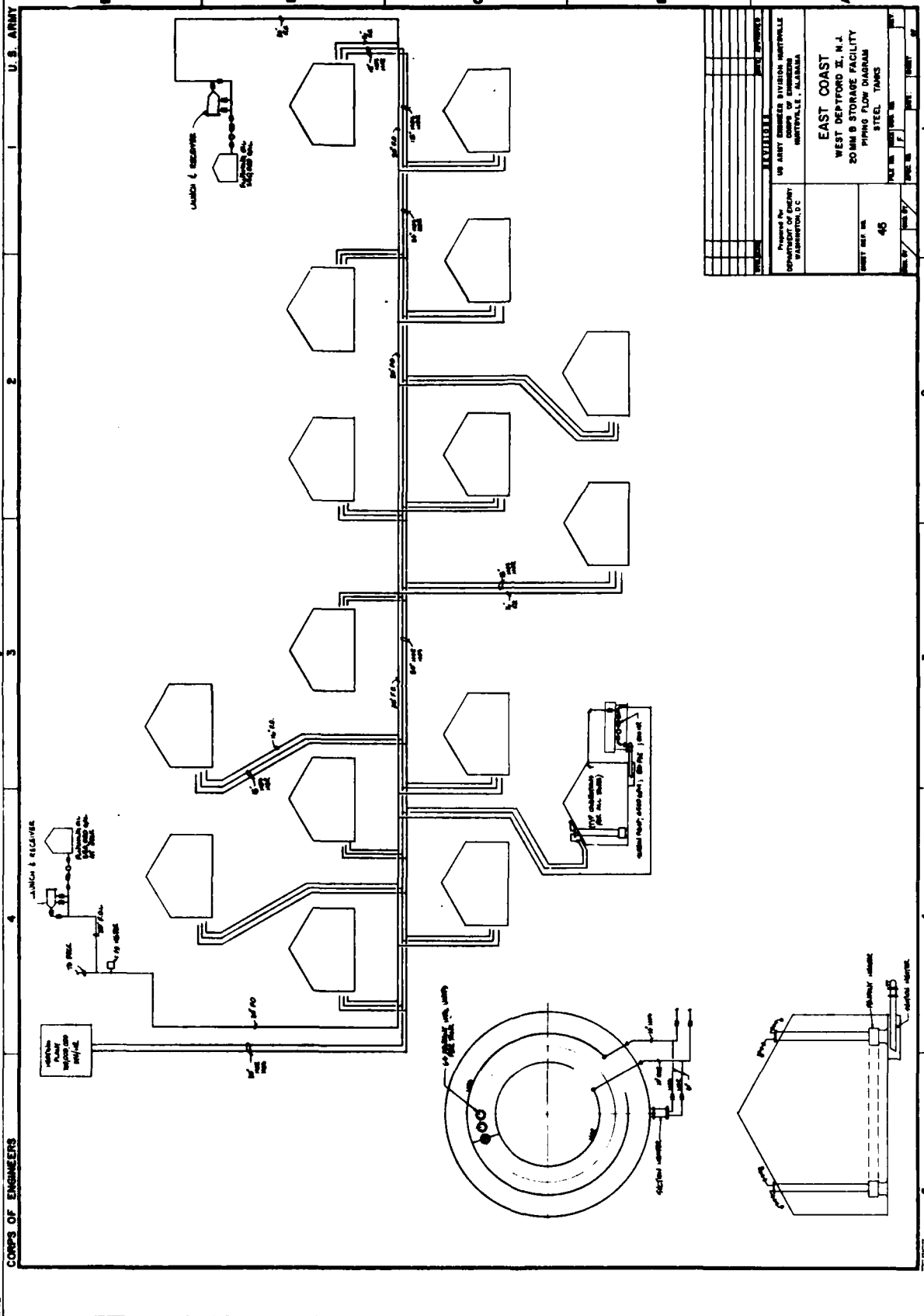
06-08-79  
XX  
--20--  
13 AUGUST 1979  
U.S. AIR FORCE



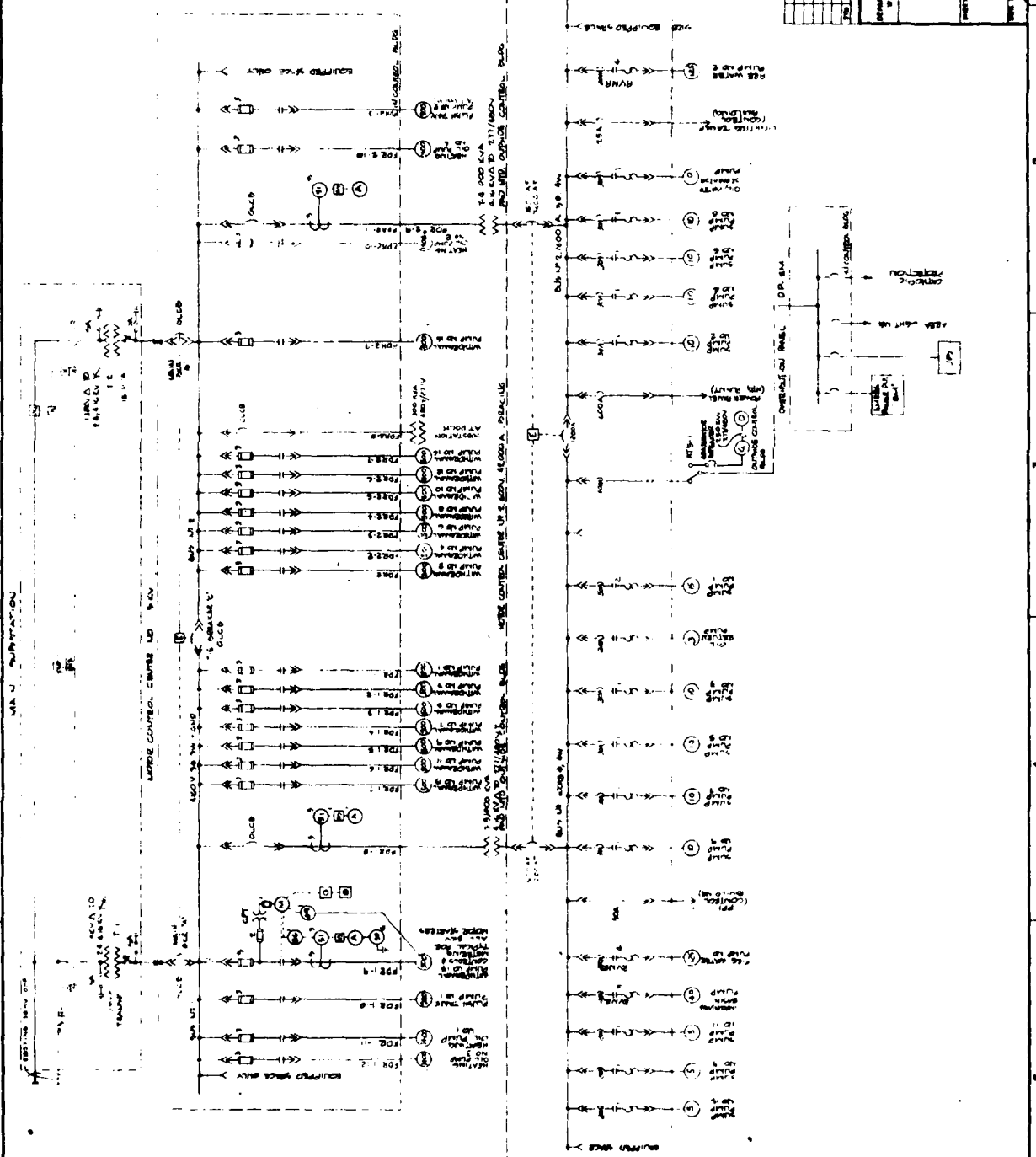
OVERALL SITE PLAN - STEEL TANKS  
WEST DEPTDRO II, 41  
20 MAR 69. 5:12 PM.

[illegible]





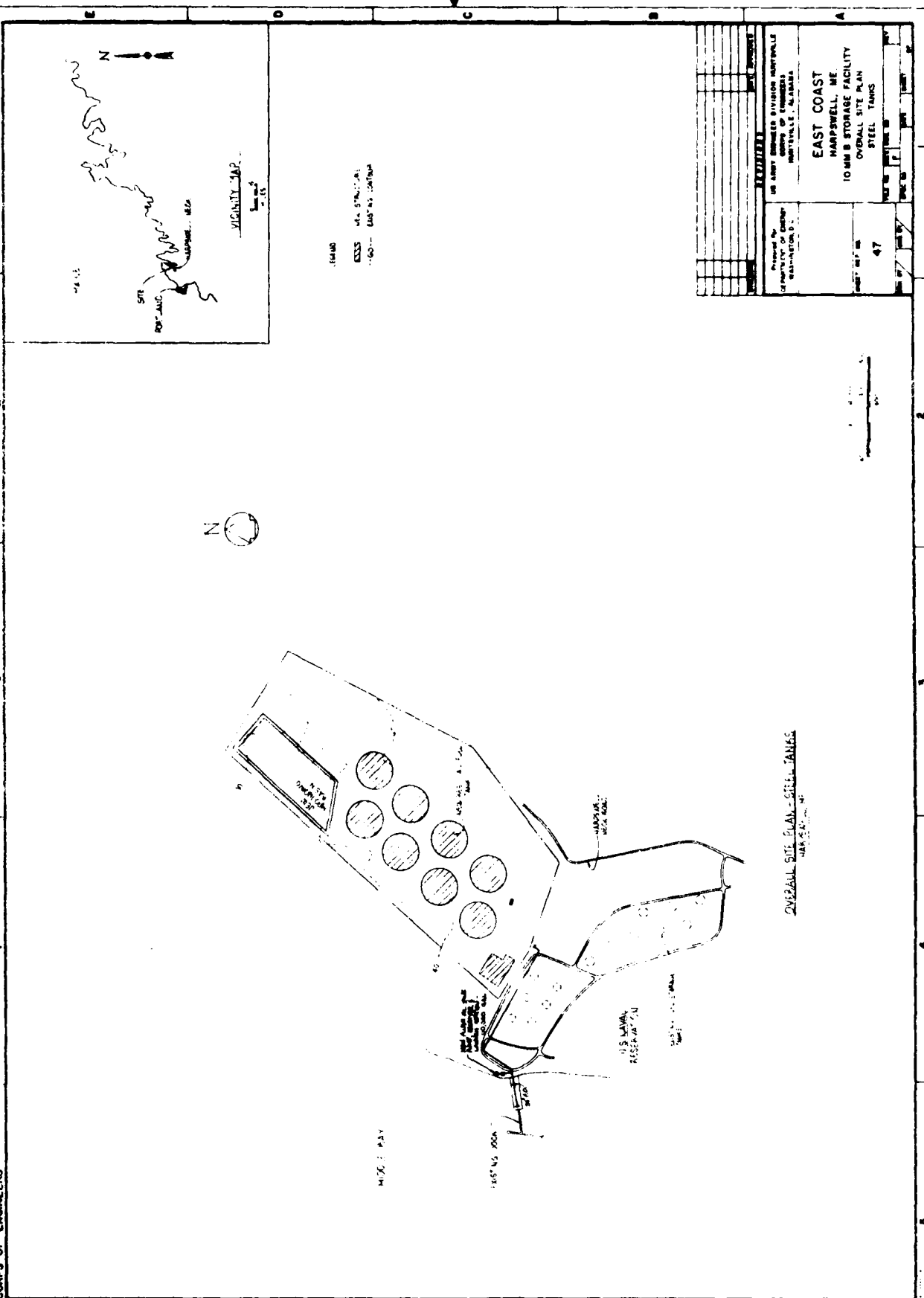




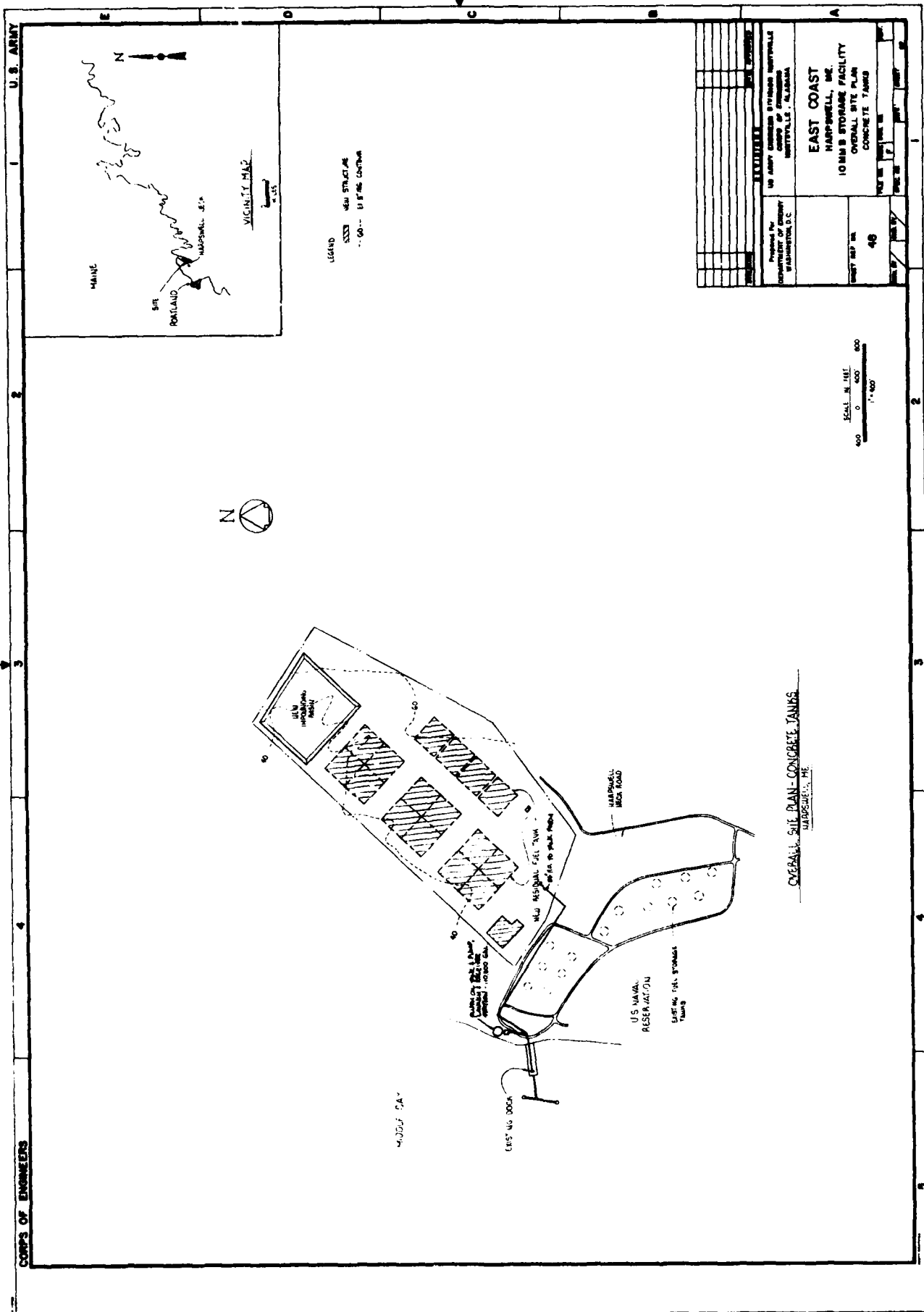
PREPARED FOR DEPARTMENT OF ENERGY WASHINGTON D C	RECEIVED 11/11/61	MAIL ROOM 11/11/61	EAST COAST WEST DEPTFORD II, N J ROOM 2B STORAGE FACILITY ELECTRICAL T-LINE DIAGRAM STEEL TUBES	46	11/11/61
--	----------------------	-----------------------	---	----	----------

U. S. ARMY

**COMPY OF ENGINEERS**



48

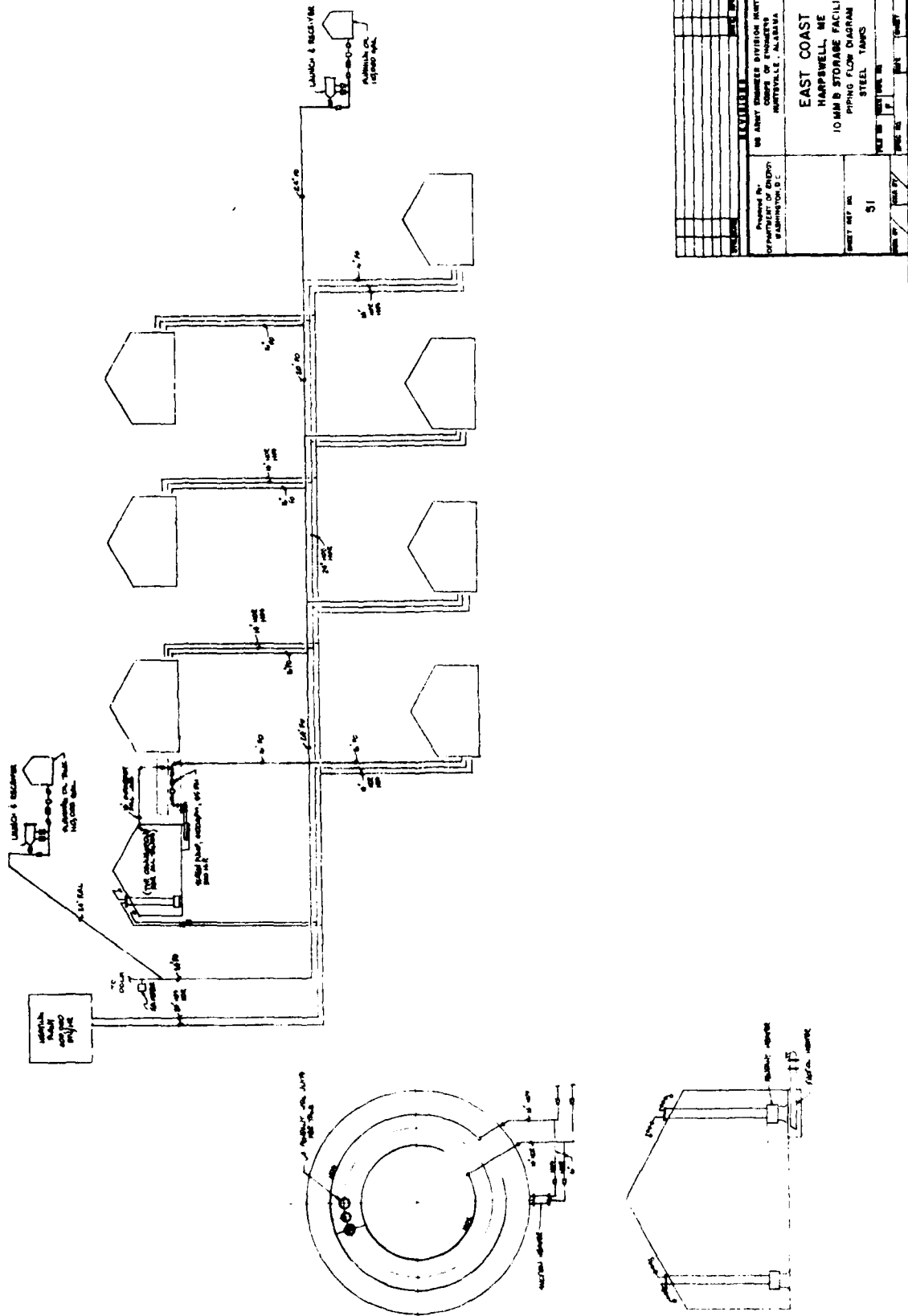


50



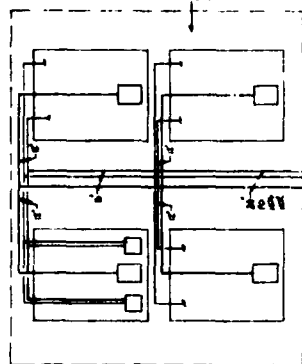
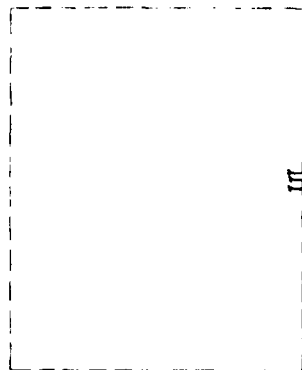
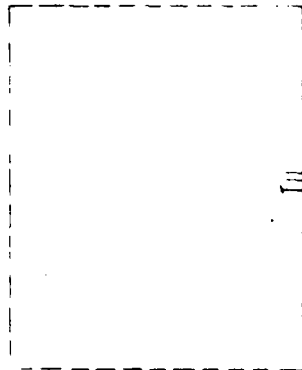
U.S. ARMY

CORPS OF ENGINEERS



U. S. ARMY

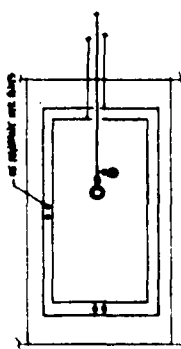
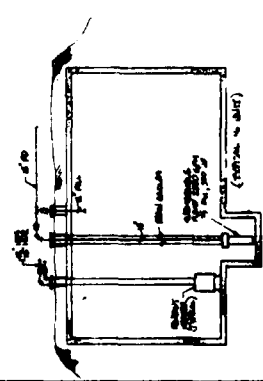
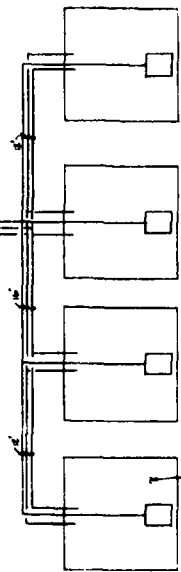
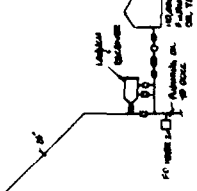
CORPS OF ENGINEERS



25' x 10'

25' x 10'

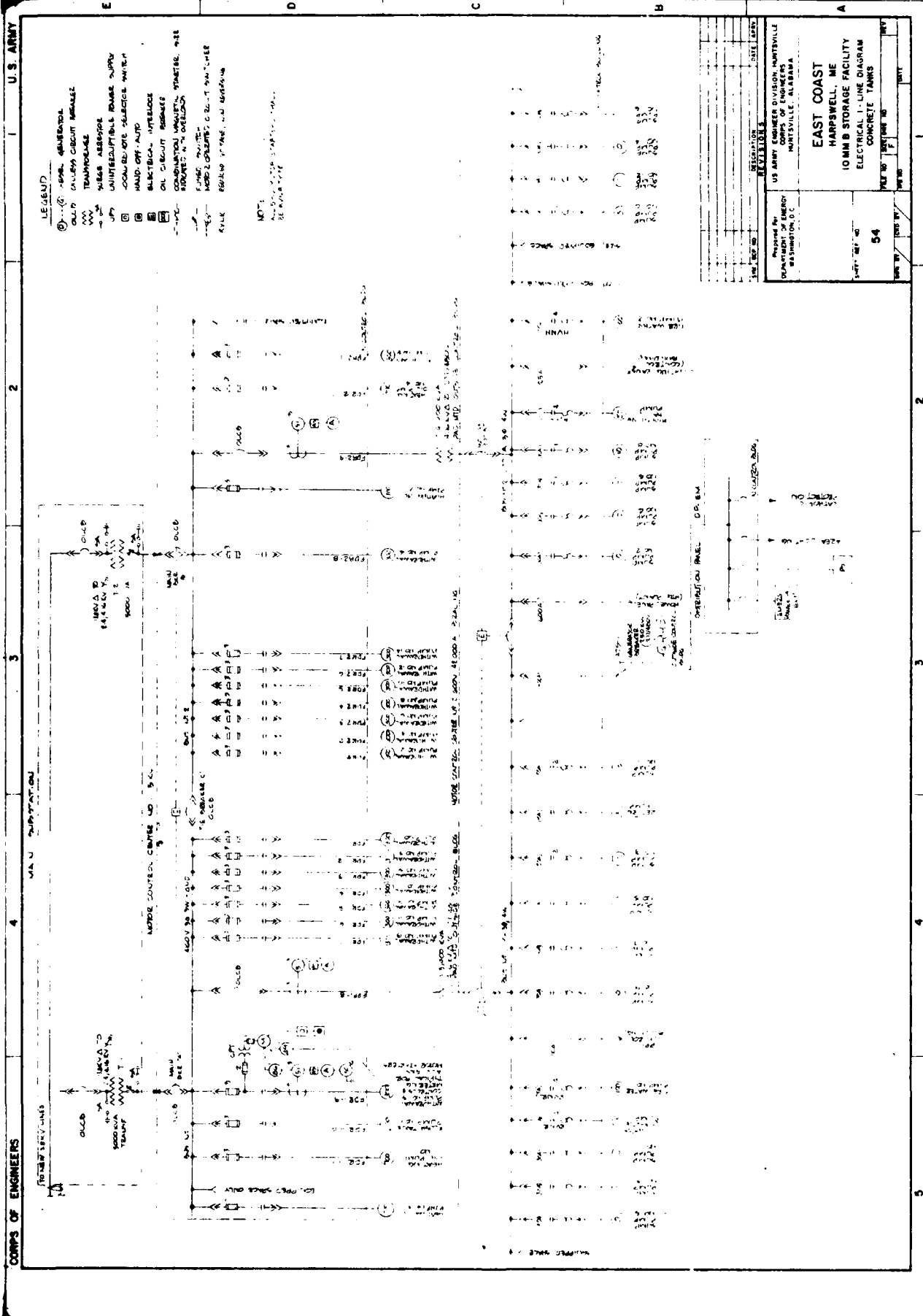
25' x 10'

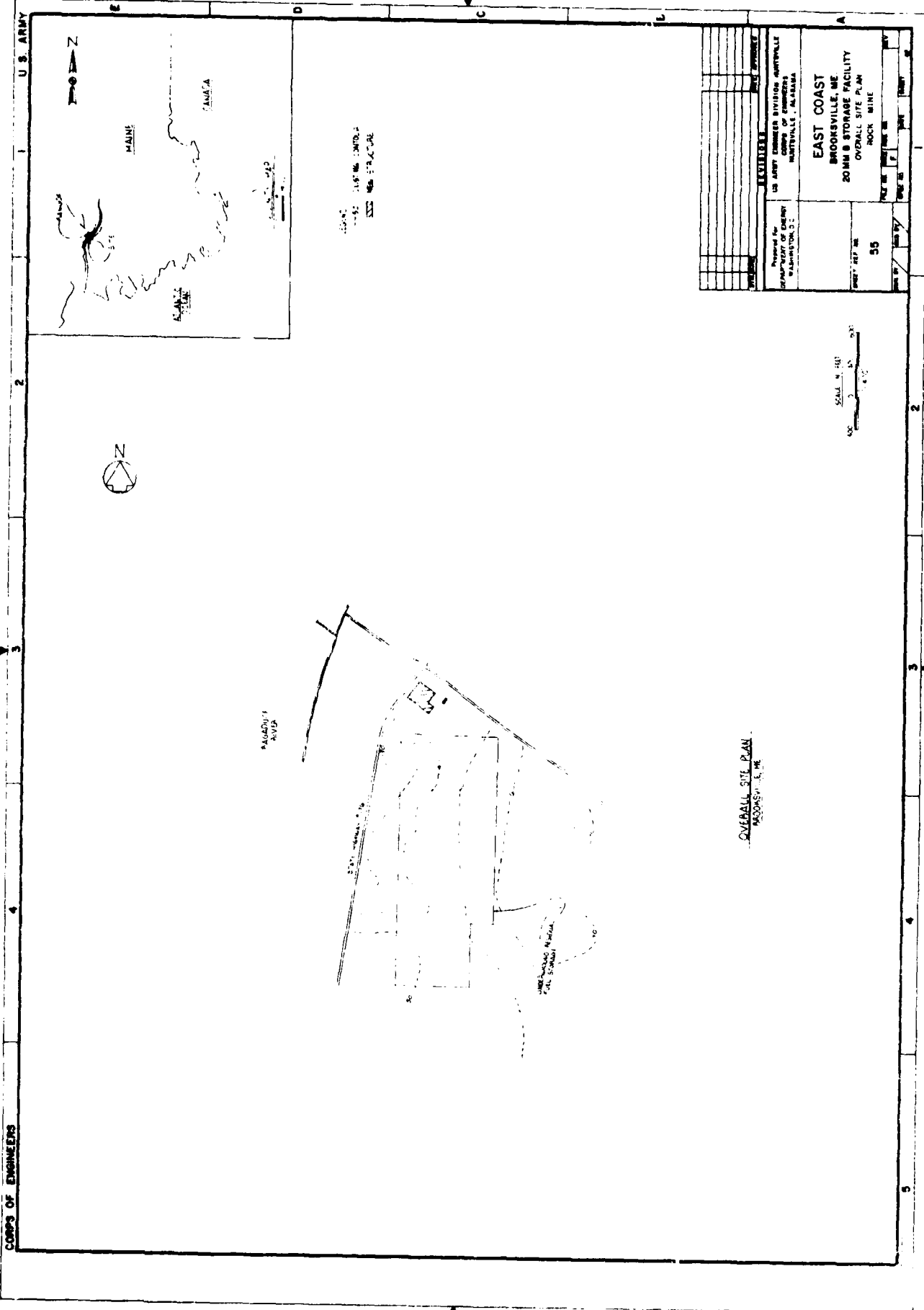


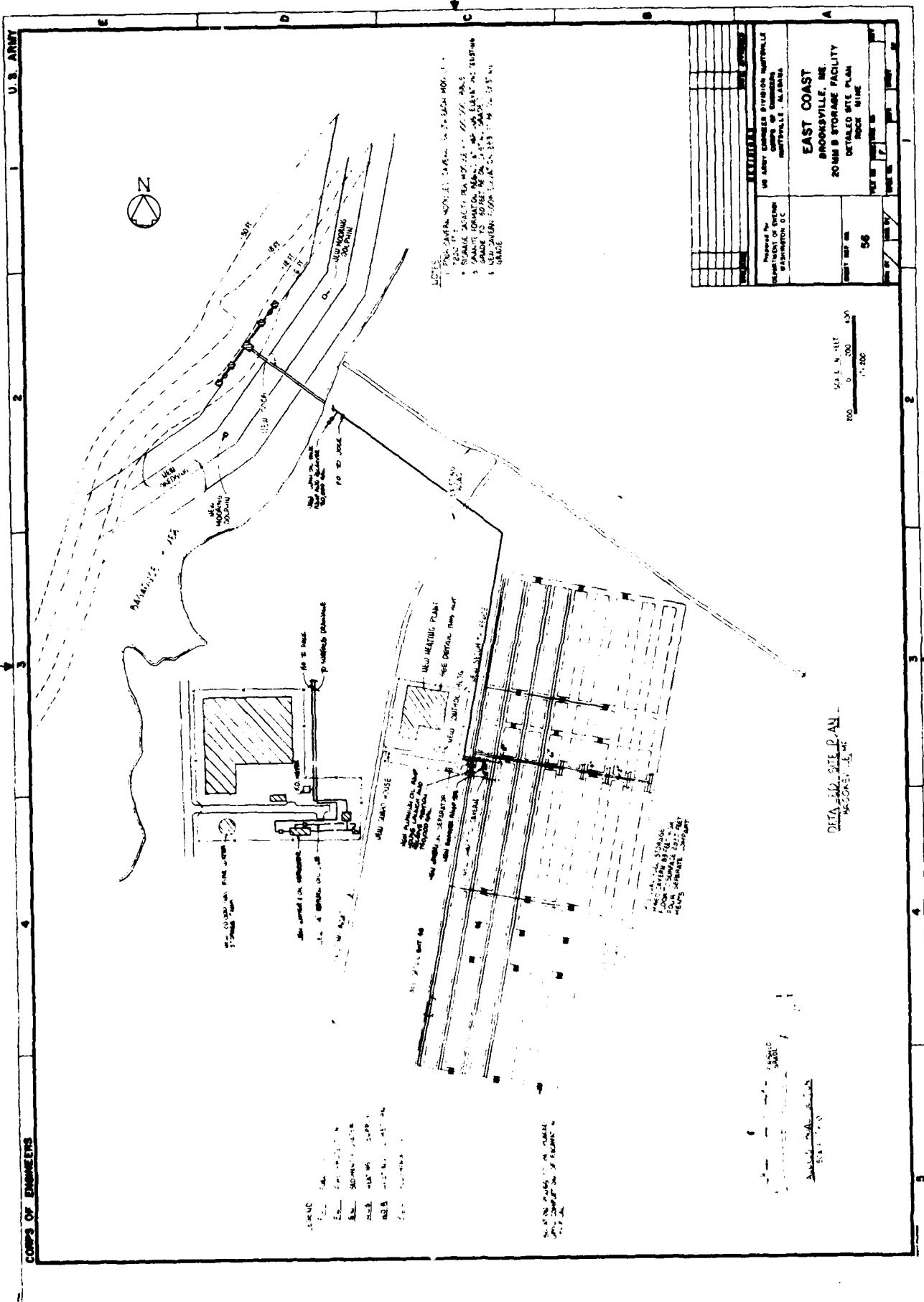
Prepared for DEPARTMENT OF DEFENSE WASHINGTON, D.C.		HNDTR-80-45-SP	
EAST COAST HARPSWELL, ME 10 MM'S STORAGE FACILITY PRIME FLOW DIAGRAM CONCRETE TANKS		52	











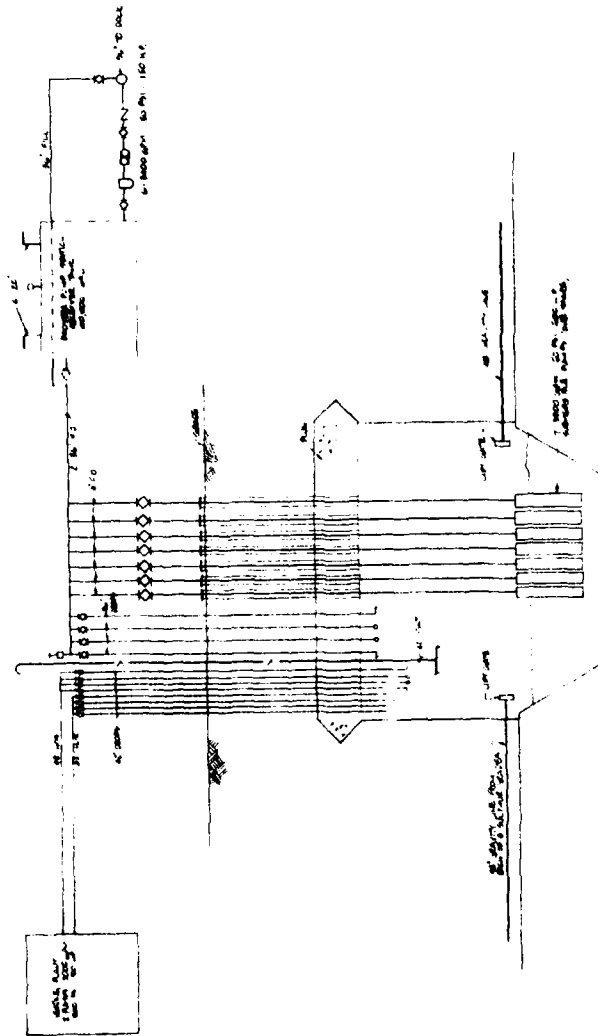
U.S. ARMY

2

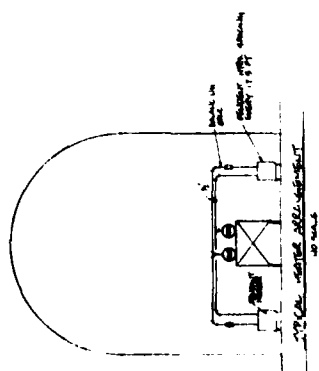
3

4

CORPS OF ENGINEERS

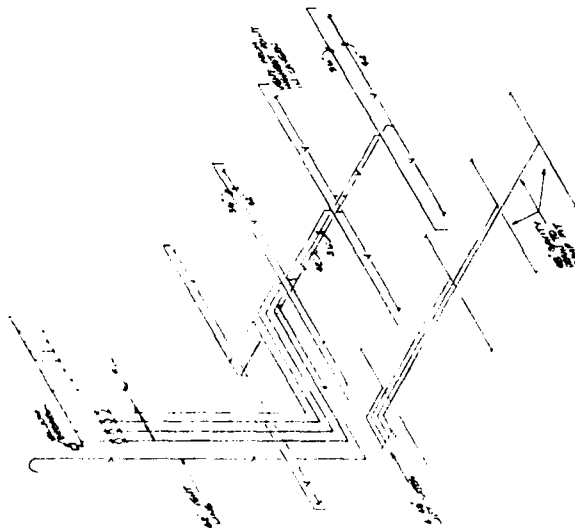


DESIGNED BY US ARMY ENGINEER DIVISION NORTONVILLE NORTONVILLE, ALABAMA		CHECKED BY US ARMY ENGINEER DIVISION NORTONVILLE NORTONVILLE, ALABAMA	
APPROVED BY ENGINEER IN CHARGE NORTONVILLE, ALABAMA		DATE 10/1/80	
PROJECT NO. 57		SHEET NO. 1	
<p><b>EAST COAST</b>  <b>BROOKSVILLE, ME</b>  <b>20 MM 8 STORAGE FACILITY</b>  <b>PIPING FLOW DIAGRAM SHEET 1</b>  <b>ROCK MINE</b></p>			

[illegible]

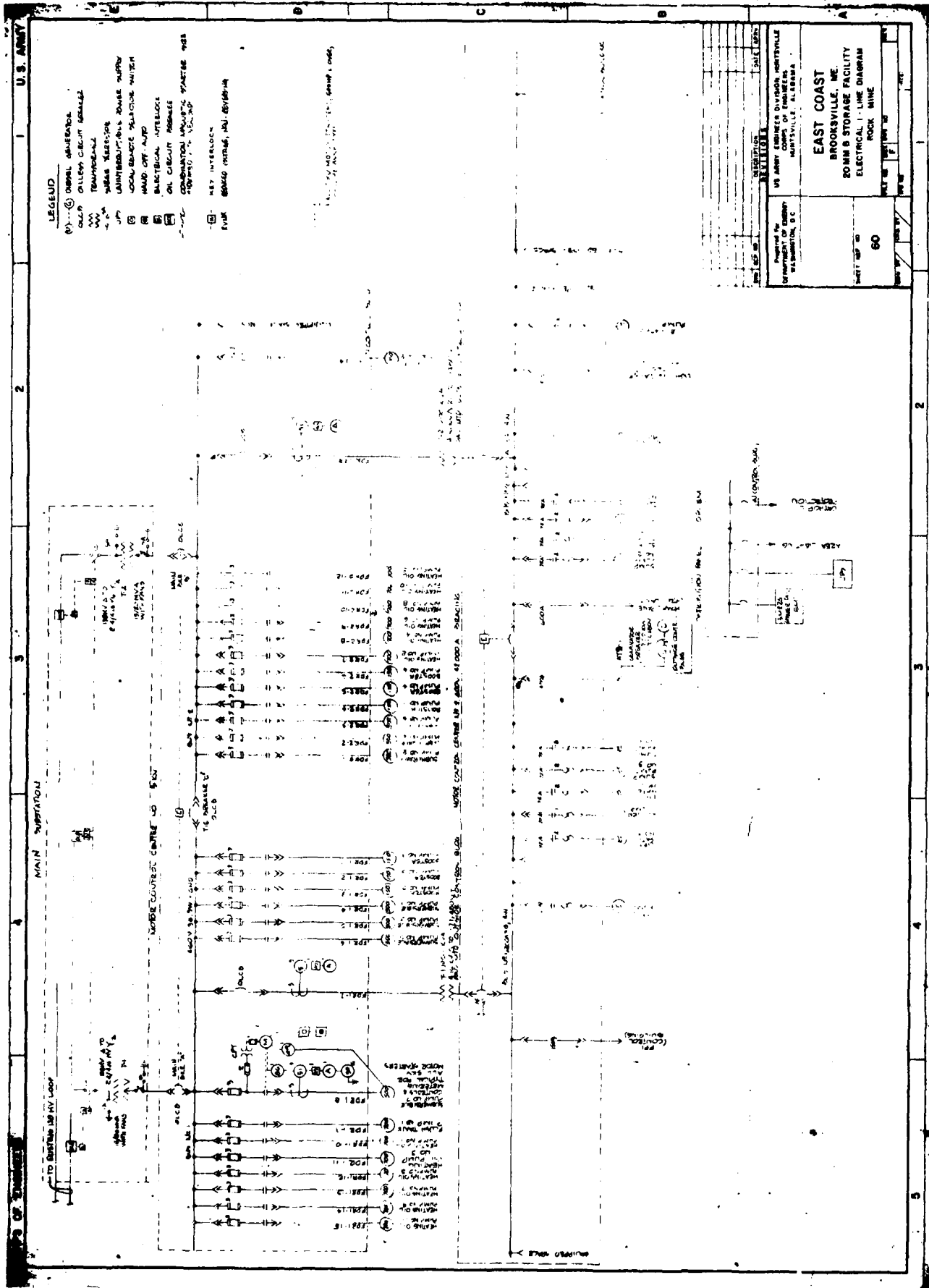
U.S. ARMY

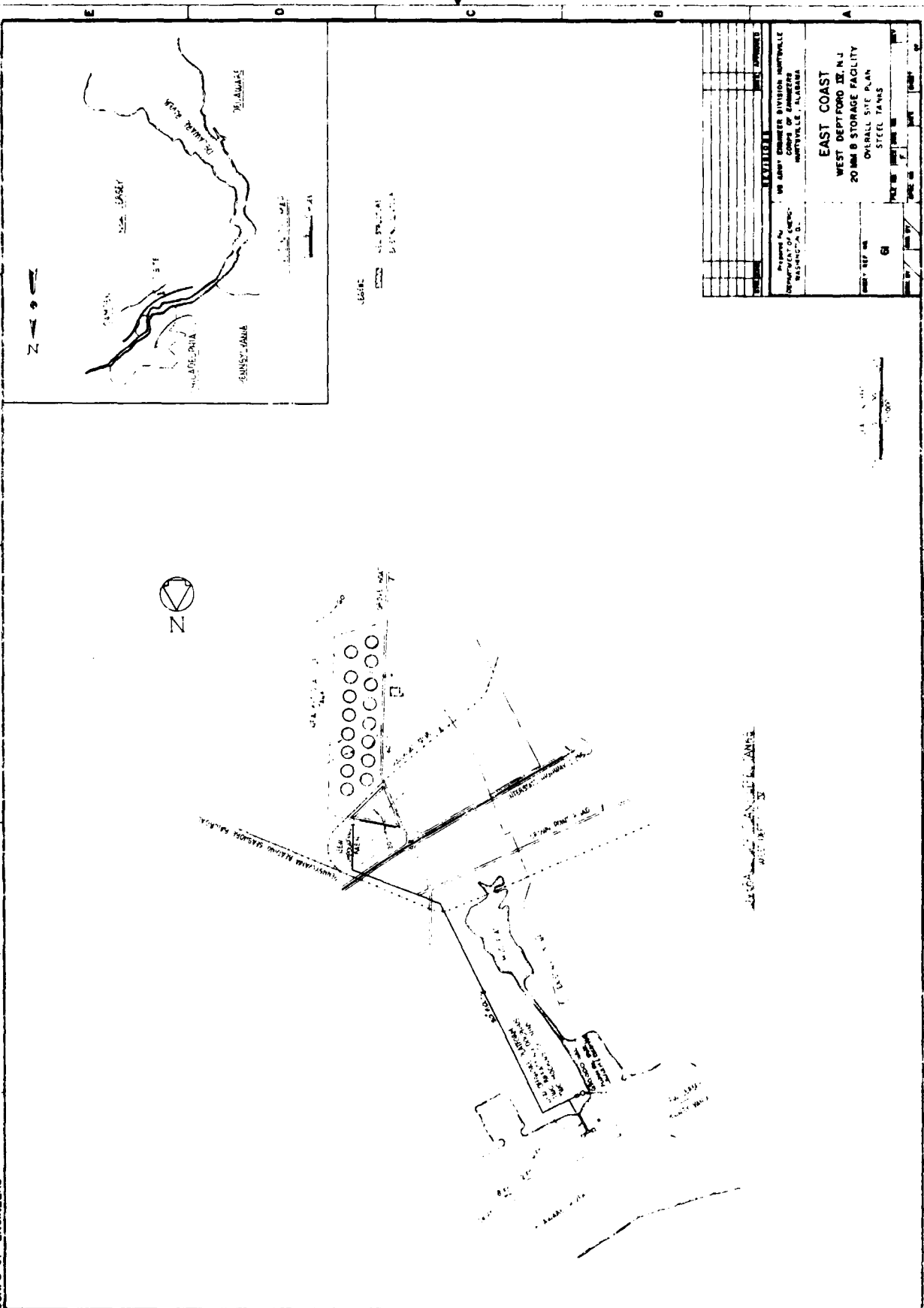
CORPS OF ENGINEERS



PIPING DIAGRAM  
FOR 20MW, 20 MW, 10 MW, 10 MW, 10 MW, 10 MW

Proposed for DEPARTMENT OF ENERGY WASHINGTON, D.C.		NO. ARMY ENGINEER DIVISION CORPS OF ENGINEERS NORTONVILLE, ALABAMA	
EAST COAST BROOKSVILLE, ME 20MW & STORAGE FACILITY PIPING FLOW DIAGRAM SPT 3		ROCK MINE	
SHEET NO. 59		TOTAL NO. 59	









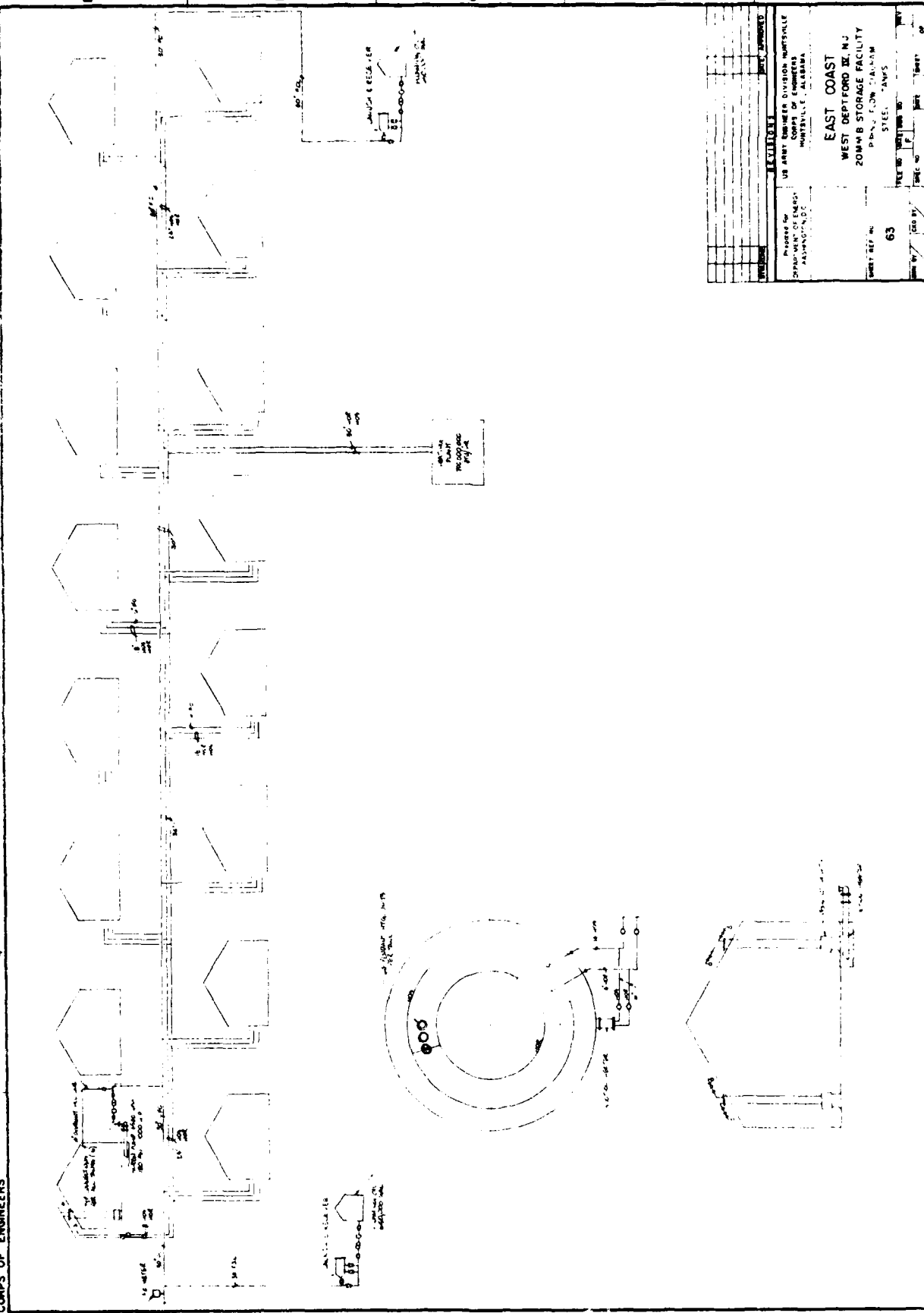
U.S. ARMY

2

3

4

CORPS OF ENGINEERS



PROJECT		EAST COAST	
PROPOSED FOR		WEST DEPTFORD NJ	
SUBMITTED BY		ZOMB B STORAGE FACILITY	
APPROVED BY		P. J. FLOW, CHAIRMAN	
DATE		STEEL, 1965	
SHEET NO.		63	
SHEET TOTAL		63	



# DRAWING INDEX

[illegible]

HNDTR-80-45-SP

CHAPTER 2  
CONSTRUCTION COST ESTIMATES  
FOR  
POTENTIAL STORAGE SITES

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Portsmouth, Va. (Steel Tanks)

STORAGE CAPACITY: 10,000,000 B3LS #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
1. Real Estate					N/A
2. Site Preparation					\$5,995,300
clear, cut, fill, grade	120	AC	25,932	3,111,900	
roads	29,000	SY	23.00	667,000	
dikes				N/A	
ponds	10.6	AC	72,123	764,500	
fences	5700	LF	15.00	85,500	
all other	1	Lot		1,366,400	
3. Storage Tanks					\$127,181,600
foundations	10,000,000	BBL	6.74	67,400,000	
tank fabrication and erection	10,000,000	BBL	4.90	49,000,000	
heaters	12	Tanks	838,465	10,061,600	
insulation				N/A	
all other	1	Lot		720,000	
4. Piping Systems					\$10,592,100
14" w/ insulation piping (incl. valves, fittings, etc.) oil	7040	LF	292.09	2,056,300	
pumps (oil)	12	Ea	129,600	1,555,200	
fire water	27,325	LF	53.00	1,448,200	
fire foam	12	Tanks	188,225	2,258,700	
heat distribution 24"Ø, 18"Ø, 14"Ø	11,100	LF	294.00	3,263,400	

HNDTR-80-45-SP

MODULAR COST (1980 \$)

**Location:** Portsmouth, VA

**STORAGE CAPACITY: 10,000,000 BBSL #6 Oil**

## MODULE I - STORAGE SITE FACILITIES

**4. (Contd).**

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE I - STORAGE SITE FACILITIES</b>					
<b>4. (Contd)</b>					
potable water	600	LF	6.00	3,600	
<del>sanitary <del>xxxxxx</del></del>	600	LF	11.17	6,700	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$59,720,200
<b>5. Buildings/Structures</b>					
control/administration	11,200	SF	70.00	784,000	
maint./fire/warehouse	8,000	SF	61.00	488,000	
heating plant, support. & heating medium	1	Lot		58,354,000	
guard house	120	SF	85.00	10,200	
all other	1500	SF	56.00	84,000	
					\$4,999,600
<b>6. Electrical</b>					
substation	1	Lot		355,800	
distribution	1	Lot		4,103,600	
emergency (diesel gen.)	1	Lot		247,900	
exterior lighting	1	Lot		175,500	
power line to site	1	Lot		2,000	
all other	1	Lot		114,800	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Portsmouth, VA

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					
microprocessor	1	Lot		299,000	
control panels/displays	1	Lot		108,300	
security	1	Lot		195,000	
all other	1	Lot		862,700	
8. All Other Storage Site Items (Oily Water)	1	Lot		613,800	\$613,800
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP



## MODULAR COST (1980 \$)

Sheet 4 of 4

Location: Portsmouth, VA.

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

MODULE II - DOCK/TERMINAL FACILITIES (Contd)	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
3. Terminal					
de-ballasting (piping)	2500	LF	65.50	163,800	\$449,400
surge tanks				N/A	
purge tanks	2	Ea	142,800	285,600	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical (In Module I)				N/A	
all other				N/A	
4. All Other Dock/Terminal Items					
MODULE 3 - TRANSFER FACILITIES					
1. Real Estate					N/A
2. Pipeline					\$1,690,900
pipe (incl cathodic protection)	1	Lot		129,900	
heaters Tape (Includes Site Piping)	1	Lot		186,600	
custody transfer metering	1	Lot		750,000	
launcher/receiver	2	Ea	312,200	624,400	
cycling capability					
all other					
3. All Other Transfer Facility Items					
I: 210,567,600					
II: 449,400					
III: 1,690,900					
TOTAL MODULES I + II + III				TOTAL =	\$212,707,900
					\$21.27/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Portsmouth, VA (Concrete Tanks) STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate					N/A
2. Site Preparation					\$12,315,300
clear, cut, fill, grade	120	AC	24,056	2,886,800	
roads	25,000	SY	23.00	575,000	
dikes (Embankment Around Tanks)	1	Lot		5,883,500	
ponds	13.3	AC	72,782	968,000	
fences	6000	LF	15.00	90,000	
all other (Turf, Drainage, Soil Study, Etc.)	1	Lot		1,912,000	
3. Storage Tanks					\$149,970,500
foundations	10,000,000	BBL	9.259	92,590,000	
tank fabrication and erection	10,000,000	BBL	4.532	45,320,000	
heaters	16	Tanks	309,781	4,956,500	
insulation				N/A	
all other (Dewatering & Testing)	1	Job		7,104,000	
4. Piping Systems					\$12,063,300
piping (incl. valves, fittings, etc.) oil	8020	LF	289.31	2,320,300	
pumps (oil)	16	Fa	63,682	1,018,900	
fire water w/tank	34,200	LF	37.54	1,283,900	
fire foam	16	Tanks	212,624	3,402,000	
heat distribution	20,080	LF	200.59	4,027,900	

HNDTR-80-45-SP

Sheet 2 of 4

## MODULAR COST (1980' \$)

Location: Portsmouth, VA (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES					
4. (Contd)					
potable water	600	LF	6.00	3600	
sanitary <del>incinerator</del>	600	LF	11.17	6700	
inert gas					
vapor recovery					
all other					
					\$36,879,900
5. Buildings/Structures					
control/administration	11,200	SF	70.00	784,000	
maint./fire/warehouse	8,000	SF	61.00	488,000	
heating plant & Support	1	Lot		35,513,700	
guard house	120	SF	85.00	10,200	
all other	1500	SF	56.00	84,000	
					5,288,000
6. Electrical					
substation	1	Lot		354,800	
distribution	1	Lot		4,381,700	
emergency (diesel gen.)	1	Lot		247,900	
exterior lighting	1	Lot		234,600	
power line to site	1	Lot		2,000	
all other				67,000	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Portsmouth, VA (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					
microprocessor	1	Lot		350,600	
control panels/displays	1	Lot		131,700	
security	1	Lot		195,000	
all other	1	Lot		739,500	
8. All Other Storage Site Items					\$906,600
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP

MODULAR COST (1980 \$)

Sheet 4 of 4

ANDTR-80-45-SP

Location: Portsmouth, VA (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

MODULE II - DOCK/TERMINAL FACILITIES (Contd)

3. Terminal

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
de-ballasting (Piping)	2500	LF	65.50	163,800	
surge tanks				N/A	
purge tanks	2	EA	142,800	285,600	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical				N/A	
all other				N/A	

4. All Other Dock/Terminal Items

MODULE 3 - TRANSFER FACILITIES

1. Real Estate

2. Pipeline

pipe (incl cathodic protection)	1	Lot		255,900	
heaters (Includes Site Piping)	1	Lot		205,400	
custody transfer metering	1	Lot		750,100	
launcher/receiver	2	Ea	393,550	787,100	
cycling capability					
all other					

3. All Other Transfer Facility Items

TOTAL MODULES I + II + III				TOTAL =	\$221,288,300
I-\$218,840,400					\$22.13/BBL
II-\$449,400					
III -\$1,998,500					

\$1,998,500

\$221,288,300  
\$22.13/BBL

# MODULAR COST (1980 \$)

Location: Canaveral, FL

Sheet 1 of 4

STORAGE CAPACITY: 10,000,000 BELS #6 OIL

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
1. Real Estate					N/A
2. Site Preparation					7,633,300
clear, cut, fill, grade	190	AC	14,760	2,804,400	
roads	44,000	SY	23.00	1,012,000	
dikes				N/A	
ponds	41.3	AC	59,927	2,475,000	
fences	11,700	LF	15.00	175,500	
all other (Turf, Drainage, Soil Investigation)	1	Lot		1,166,400	
3. Storage Tanks					\$70,031,600
foundations w/Preload	10,000,000	B3L	1.033	10,330,000	
tank fabrication and erection	10,000,000	BBL	4.904	49,040,000	
heaters	12	Tanks	838,467	10,061,600	
insulation				N/A	
all other (Load & Test)	1	Lot		600,000	
4. Piping Systems					\$11,474,600
piping (incl. valves, fittings, etc.) oil	6,000	LF	381.43	2,288,600	
pumps (oil)	12	Ea	189,000	2,268,000	
fire water	29,425	LF	51.88	1,526,600	
fire foam	12	Tanks	188,225	2,258,700	
heat distribution	10,800	LF	289.11	3,122,400	

ENDTR-80-45-SP

## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: Canaveral, FL

STORAGE CAPACITY: 10,000,000 BELS #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES					
4. (Contd)					
potable water	600	LF	6.00	3,600	
sanitary ( <del>sanitary treatment</del> )	600	LF	11.17	6,700	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$35,906,200
5. Buildings/Structures					
control/administration	11,200	SF	70.00	784,000	
maint./fire/warehouse	8,000	SF	61.00	488,000	
heating plant	1	Lot		34,540,000	
guard house	120	SF	85.00	10,200	
all other	1500	SF	56.00	84,000	
					\$10,102,600
6. Electrical					
substation	1	Lot		698,200	
distribution	1	Lot		2,816,400	
emergency (diesel gen.)	1	Lot		247,900	
exterior lighting	1	Lot		262,800	
power line to site				5,964,000	
all other	1	Lot		113,300	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Canaveral, FL

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					
microprocessor	1	Lot		395,000	
control panels/displays	1	Lot		170,200	
security	1	Lot		407,000	
all other	1	Lot		671,200	
8. All Other Storage Site Items (Oily Water)	1	Lot		672,000	\$672,000
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP



MODULAR COST (1980 \$)

Sheet 4 of 4

Location: Canaveral, FL

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

HNDTR-80-45-SP

MODULE II - DOCK/TERMINAL FACILITIES (Contd)		QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
3. Terminal						
de-ballasting		1	Lot		657,200	\$1,075,200
surge tanks					N/A	
purge tanks		1	Lot		285,600	
booster pumps					N/A	
control center					N/A	
fire water and foam					N/A	
electrical		1	Lot		132,400	
all other					N/A	
4. All Other Dock/Terminal Items						N/A
MODULE 3 - TRANSFER FACILITIES						
1. Real Estate Easement		1	Lot		322,000	\$322,000
2. Pipeline						\$9,239,800
pipe (incl cathodic protection)		29,150	LF	242.48	7,068,300	
heaters Tape		1	Lot		606,000	
custody transfer metering		1	Lot		750,000	
launcher/receiver		2	Ea	407,750	815,500	
cycling capability					N/A	
all other					N/A	
3. All Other Transfer Facility Items						
TOTAL MODULES I + II + III					TOTAL =	\$148,100,700
						\$14.81/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Portsmouth, N.H. (Steel Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

HNDTR-80-45-SP

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate					N/A
2. Site Preparation					\$5,235,200
clear, cut, fill, grade	80	AC	27,546	2,203,700	
roads	26,000	SY	21.09	546,000	
dikes				N/A	
ponds	13.54	AC	96,307	1,304,000	
fences	9,700	LF	13.85	134,400	
all other (Turf, Drainage, Soils Etc.)	1	Lot		1,047,100	
3. Storage Tanks					\$64,914,300
foundations	10,000,000	BBLs	0.9612	9,612,000	
tank fabrication and erection	10,000,000	BBLs	4.5436	45,436,000	
heaters	12	TANKS	776,358	9,316,300	
insulation				N/A	
all other (Fill & Test)	1	Lot		550,000	
4. Piping Systems					\$9,554,800
piping (incl. valves, fittings, etc.) oil	4600	LF	342.12	1,573,800	
pumps (oil)	14	Ea	140,000	1,680,000	
fire water	29,616	LF	47.96	1,420,400	
fire foam	10	TANKS	174,283	2,091,400	
heat distribution	9200	LF	302.14	2,779,700	

## MODULAR COST (1980 \$)

Location: Portsmouth, N.H. (Steel Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE I - STORAGE SITE FACILITIES</b>					
<b>4. (Contd)</b>					
potable water	600	LF	5.50	3,300	
sanitary <del>canisters</del>	600	LF	10.33	6,200	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$56,718,000
<b>5. Buildings/Structures</b>					
control/administration	11,200	SF	65.00	728,000	
maint./fire/warehouse	8,000	SF	56.50	452,000	
heating plant	1	Lot		55,450,500	
guard house	120	SF	79.00	9,500	
all other	1500	SF	52.00	78,000	
					\$4,587,900
<b>6. Electrical</b>					
substation	1	Lot		390,000	
distribution	1	Lot		3,711,000	
emergency (diesel gen.)	1	Lot		229,600	
exterior lighting	1	Lot		147,200	
power line to site	1	Lot		2,000	
all other	1	Lot		108,100	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Portsmouth, N.H. (Steel Tanks) STORAGE CAPACITY: 10,000,000 BLS #6 Oil

MODULE 1 - STORAGE SITE FACILITIES (Contd)

7. Instrumentation

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
microprocessor	1	Lot		187,900	
control panels/displays	1	Lot		117,900	
security	1	Lot		328,400	
all other	1	Lot		745,100	
8. All Other Storage Site Items	1	Lot		538,800	\$538,800

81

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate

2. Dock

dock structure					N/A
dredging					N/A
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP

MODULAR COST (1980 \$)

Sheet 4 of 4

HNDTR-80-45-SP

Location: Portsmouth, N.H. (Steel Tanks)

STORAGE CAPACITY: 10,000,000 BBL #6 Oil

MODULE II - DOCK/TERMINAL FACILITIES (Contd)

3. Terminal

de-ballasting

surge tanks

purge tanks

booster pumps

control center

fire water and foam

electrical

all other

4. All Other Dock/Terminal Items

MODULE 3 - TRANSFER FACILITIES

1. Real Estate

2. Pipeline

pipe (incl cathodic protection)

heaters- Tape

custody transfer metering

launcher/receiver

cycling capability

all other

3. All Other Transfer Facility Items

TOTAL MODULES I + II + III  
I- \$142,928,300  
II- \$871,500  
III- \$3,031,700

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
	1	Lot		608,500	\$871,500
				N/A	
	2	Ea	127,700	255,400	
				N/A	
				N/A	
				N/A	
	1	Lot		7,600	
				N/A	
					N/A
	1	Lot		45,500	\$45,000
					\$2,986,700
	6800	LF	207.15	1,408,600	
	1	Lot		305,600	
	1	Lot		694,500	
	2	Ea	289,000	578,000	
				N/A	
				N/A	
					N/A
				TOTAL =	\$146,831,500 \$14.68/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Portsmouth, N.H. (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

### 1. Real Estate

### 2. Site Preparation

clear, cut, fill, grade

roads

dikes (Embankment & Backfill Around Tanks)

ponds

fences

all other

### 3. Storage Tanks

foundations

tank fabrication and erection

heaters

insulation

all other (Dewatering, Testing)

### 4. Piping Systems

piping (incl. valves, fittings, etc.) oil

pumps (oil)

fire water

fire foam

heat distribution

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
					N/A
	130	AC	26,773	3,480,500	
	57,000	SY	21.00	1,197,000	
	1	Lot		3,219,000	
	13.54	AC	96,307	1,304,000	
	15,000	LF	13.85	207,800	
	1	Lot		2,564,800	
					\$53,546,300
	10,000,000	BBL	0.67	6,700,000	
	10,000,000	BBL	3.566	35,660,000	
	16	TANKS	382,442	4,589,300	
				N/A	
	1	Lot		6,597,000	
					\$11,449,200
	8400	LF	260.44	2,187,700	
	16	Pa	58,406	934,500	
	34,016	LF	46.75	1,590,300	
	16	Tanks	196,875	3,150,000	
	20,600	LF	173.65	3,577,200	

HNDTR-80-45-SP

## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: Portsmouth, N.H. (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BLS #6 Oil

## MODULE I - STORAGE SITE FACILITIES

## 4. (Contd)

potable water

sanitary ~~wooden treatment~~

inert gas

vapor recovery

all other

## 5. Buildings/Structures

control/administration

maint./fire/warehouse

heating plant

guard house

all other

## 6. Electrical

substation

distribution

emergency (diesel gen.)

exterior lighting

power line to site

all other

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
	600	LF	5.50	3,300	
	600	LF	10.33	6,200	
				N/A	
				N/A	
				N/A	
					\$34,150,000
	11,200	SF	65.00	728,000	
	8,000	SF	56.50	452,000	
	1	Lot		32,883,000	
	120	SF	79.00	9,500	
	1500	SF	52.00	78,000	
					\$4,354,100
	1	Lot		390,000	
	1	Lot		3,502,900	
	1	Lot		229,600	
	1	Lot		144,400	
	1	Lot		2,000	
	1	Lot		85,200	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Portsmouth, N.H. (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					
microprocessor	1	Lot		354,300	
control panels/displays	1	Lot		130,800	
security	1	Lot		327,400	
all other	1	Lot		928,400	
8. All Other Storage Site Items	1	Lot		616,600	\$616,600
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl navavids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP



# MODULAR COST (1980 \$)

Sheet 4 of 4

HNDTR-30-45-SP

Location: Portsmouth, N.H. (Concrete Tanks) STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

## MODULE II - DOCK/TERMINAL FACILITIES (Contd)

### 3. Terminal

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
de-ballasting	1	Lot		621,000	
surge tanks				N/A	
purge tanks	2	Ea	127,700	255,400	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical (In Module I)					
all other				N/A	
					N/A

### 4. All Other Dock/Terminal Items

## MODULE 3 - TRANSFER FACILITIES

1. Real Estate	1	Lot		45,500	\$45,500
2. Pipeline					\$3,280,700

### pipe (incl cathodic protection)

heaters Tape	6800	LF	199.28	1,355,100	
custody transfer metering	1	Lot		371,100	
launcher/receiver	1	Lot		694,500	
cycling capability	2	Ea	430,000	860,000	
all other				N/A	
				N/A	

### 3. All Other Transfer Facility Items

TOTAL MODULES I + II + III	I- \$117,830,700			TOTAL =	\$122,033,300
	II- \$ 876,400				\$12.20/BBL
	III- \$ 3,326,200				

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Calverton, N.Y. (Concrete Tanks) STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate					N/A
2. Site Preparation					\$14,185,300
clear, cut, fill, grade	138	AC	44.256	6,107,300	
roads	46,000	SY	27.00	1,242,000	
dikes	445,000	CY	7.00	3,115,000	
ponds	7.8	AC	102.500	799,500	
fences	9570	LF	17.60	168,500	
all other (Turf, Drainage, Soil Study, Etc)	1	Lot		2,753,000	
3. Storage Tanks					\$74,564,100
foundations	10,000,000	BBL	1.1383	11,383,000	
tank fabrication and erection	10,000,000	BBL	4.9012	49,012,000	
heaters	1	Lot		5,813,100	
insulation				N/A	
all other (Dewatering & Testing)	1	Lot		8,356,000	
4. Piping Systems					\$15,537,400
piping (incl. valves, fittings, etc.) oil	8,600	LF	328.32	2,823,600	
pumps (oil)	16	Ea	190,000	3,040,000	
fire water	30,375	LF	60.42	1,835,300	
fire foam	16	Tanks	249,375	3,990,000	
heat distribution	17,200	LF	223.05	3,836,500	

HNDTR-80-45-SP

AD-A144 650

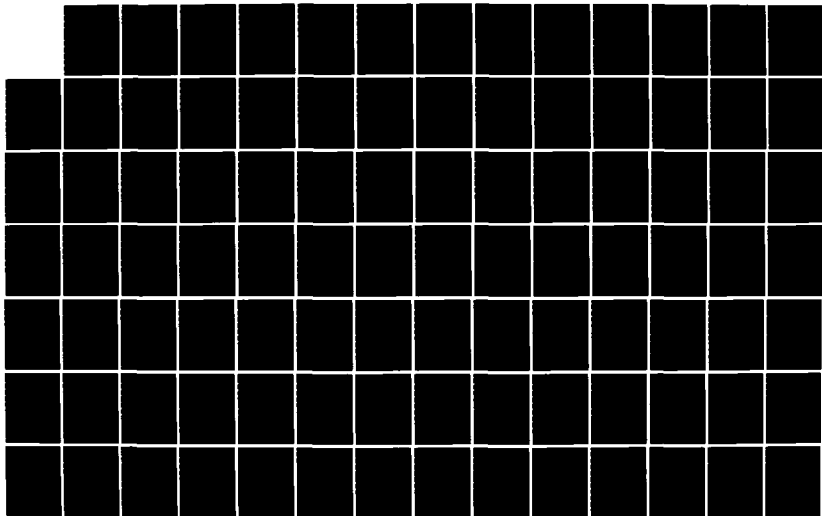
EAST COAST REGIONAL PETROLEUM RESERVE (RPR) VOLUME 2  
POTENTIAL STORAGE SI. (U) ARMY ENGINEER DIV HUNTSVILLE  
AL R E SHANNON ET AL. 30 SEP 80 HNDTR-80-45-SP-VOL-2

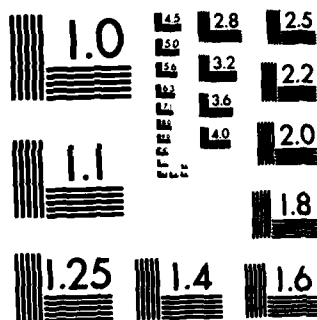
2/3

UNCLASSIFIED

F/G 21/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: Calverton, N.Y. (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBL'S #6 Oil

## MODULE I - STORAGE SITE FACILITIES

## 4. (Contd)

potable water

sanitary (incl. treatment)

inert gas

vapor recovery

all other

## 5. Buildings/Structures

control/administration

maint./fire/warehouse

heating plant

guard house

all other

## 6. Electrical

substation

distribution

emergency (diesel gen.)

exterior lighting

power line to site

all other

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
potable water	600	LF	7.00	4200	
sanitary (incl. treatment)	600	LF	13.00	7800	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$43,000,700
control/administration	11,200	SF	82.00	918,400	
maint./fire/warehouse	8,000	SF	72.00	576,000	
heating plant	1	Lot		41,395,300	
guard house	120	SF	100.00	12,000	
all other	1500	SF	66.00	99,000	
					\$6,863,800
substation	1	Lot		520,600	
distribution	1	Lot		5,084,000	
emergency (diesel gen.)	1	Lot		290,800	
exterior lighting	1	Lot		139,700	
power line to site	1	Lot		4,300	
all other	1	Lot		824,400	

MODULAR COST (1980 \$)

Location: Calverton N.Y. (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

MODULE I - STORAGE SITE FACILITIES (Contd)

7. Instrumentation

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
microprocessor	1	Lot		369,400	
control panels/displays	1	Lot		215,800	
security	1	Lot		312,100	
all other	1	Lot		1,053,000	
8. All Other Storage Site Items	1	Lot		975,000	\$975,000

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate

2. Dock

1. Real Estate	30	AC	29,783	893,500	\$893,500
2. Dock					\$3,439,400
dock structure	1	Lot		890,200	
dredging				N/A	
loading arms	1	Lot		571,200	
fire water and foam	1	Lot		45,100	
control center	1	Lot		60,000	
electrical (incl nav aids)	1	Lot		489,200	
fenders/dolphins	1	Lot		1,383,700	
all other				N/A	

MODULAR COST (1980 \$)

Sheet 4 of 4

HNDTR-80-45-SP

Location: Silverton, N.Y. (Concrete Tanks) STORAGE CAPACITY: 10,000,000 BBLs #6 oil

MODULE II - DOCK/TERMINAL FACILITIES (Contd)	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
3. Terminal					
de-ballasting	1	Lot		738,000	\$1,061,400
surge tanks				N/A	
purge tanks	2	Ea	161,700	323,400	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical (Included with Dock)					
all other				N/A	
4. All Other Dock/Terminal Items				N/A	
<b>MODULE 3 - TRANSFER FACILITIES</b>					
1. Real Estate	1	Lot		386,900	\$386,900
2. Pipeline					\$9,818,100
pipe (incl cathodic protection)	28,560	LF	264.77	7,561,800	
heaters Tape	1	Lot		644,400	
custody transfer metering	1	Lot		879,700	
launcher/receiver	1	Lot		732,200	
cycling capability				N/A	
all other				N/A	
3. All Other Transfer Facility Items				N/A	
TOTAL MODULES I + II + III				TOTAL =	\$172,675,900
I- \$157,076,600					\$17.27/BBL
II- \$ 5,394,300					
III - \$ 10,205,000					

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Calverton, N.Y. (Concrete Tanks) STORAGE CAPACITY: 20,000,000 BBL #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate					N/A
2. Site Preparation					\$21,085,800
clear, cut, fill, grade	268	AC	44,266	11,863,400	
roads	55,000	SY	27.00	1,485,000	
dikes				N/A	
ponds	7.8	AC	108,750	848,300	
fences	17,500	LF	17.60	308,000	
all other	1	Lot		6,581,100	
3. Storage Tanks					\$130,230,100
foundations				N/A	
tank fabrication and erection	1	Lot		105,003,900	
heaters	1	Lot		11,626,200	
insulation				N/A	
all other	1	Lot		13,600,000	
4. Piping Systems					\$27,883,800
piping (incl. valves, fittings, etc.) oil	17,400	LF	324.00	5,637,600	
pumps (oil)	32	Ea	190,000	6,080,000	
fire water	36,525	LF	64.06	2,339,800	
fire foam	1	Lot		7,980,000	
heat distribution	24,200	LF	241.09	5,834,400	

HNDTR+80-45-SP



Sheet 2 of 4

## MODULAR COST (1980 \$)

Location: Calibration, NM (Concrete Tanks)STORAGE CAPACITY: 20,000,000 PBL 16 OIL

## MODULE I - STORAGE SITE FACILITIES

## 4. (Contd)

potable water	600	LF	7.00	4200	
sanitary (incl. treatment)	600	LF	13.00	7800	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$79,433,200

## 5. Buildings/Structures

control/administration	11,200	SF	82.00	918,400	
maint./fire/warehouse	8,000	SF	72.00	576,000	
heating plant	1	Lot		77,827,800	
guard house	120	SF	100.00	12,000	
all other	1500	SF	66.00	99,000	
					\$20,004,400

## 6. Electrical

substation	1	Lot		1,459,200	
distribution	1	Lot		16,740,400	
emergency (diesel gen.)	1	Lot		290,700	
exterior lighting	1	Lot		495,200	
power line to site	1	Lot		6,000	
all other	1	Lot		1,012,900	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Calverton, NY (Concrete Tanks)

STORAGE CAPACITY: 20,000,000 BBL #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
1. Instrumentation					
microprocessor	1	Lot		747,300	
control panels/displays	1	Lot		186,100	
security	1	Lot		766,300	
all other	1	Lot		3,686,600	
8. All Other Storage Site Items	1	Lot			\$1,616,300
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate	1	Lot			\$893,500
2. Dock					
dock structure	1	Lot		890,200	
dredging				N/A	
loading arms	1	Lot		571,200	
fire water and foam	1	Lot		45,100	
control center	1	Lot		60,000	
electrical (incl nav aids)	1	Lot		489,200	
fenders/dolphins	1	Lot		1,383,700	
all other				N/A	
					\$3,439,400

HNDTR-80-45-SP

Sheet 4 of 4

## MODULAR COST (1980 \$)

Location: Alton, NY (Concrete Tanks)

STORAGE CAPACITY: 20,000,000 BBL #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
3. Terminal					
de-ballasting	1	Lot		662,800	
surge tanks				N/A	
purge tanks	2	Ea	161,700	323,400	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical (In Dock Item)					
all other				N/A	
4. All Other Dock/Terminal Items					
<b>MODULE 3 - TRANSFER FACILITIES</b>					
1. Real Estate	1	Lot			\$386,900
2. Pipeline					\$6,929,300
pipe (incl cathodic protection)	25,000	LF	166. <sup>965</sup>	4,174,100	
heaters	1	Lot		1,371,800	
custody transfer metering	1	Lot		519,200	
launcher/receiver	1	Lot		864,200	
cycling capability				N/A	
all other				N/A	
3. All Other Transfer Facility Items					
TOTAL MODULES I + II + III				TOTAL =	\$298,275,200
I- 285,639,900					\$14.91/BBL
II- 5,319,100					
III- 7,316,200					

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Northville, N.Y. (Steel Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
1. Real Estate	1	Lot			\$5,059,000
2. Site Preparation					\$9,347,300
clear, cut, fill, grade	170	AC	21,423	3,642,000	
roads	65,000	SY	27.00	1,755,000	
dikes				N/A	
ponds	16.8	AC	108,720	1,826,500	
fences	13,000	LF	17.60	228,800	
all other	1	Lot		1,895,000	
					\$132,024,700
3. Storage Tanks					
foundations	1	Lot		1,909,100	
tank fabrication and erection	20,000,000	BBL	5.50	110,000,000	
heaters	1	Lot		19,315,600	
insulation				N/A	
all other	1	Lot		800,000	
					\$16,411,800
4. Piping Systems					
piping (incl. valves, fittings, etc.) oil	8400	LF	236.96	1,990,500	
pumps (oil)	16	Fa	232,900	3,726,400	
fire water	33,736	LF	59.50	2,007,300	
fire foam	1	Lot		3,990,000	
heat distribution	18,200	LF	257.45	4,685,600	

HNDTR-80-45-SP

## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: Northville, NY (Steel Tanks)

STORAGE CAPACITY: 20,000,000 BEIS #6 OIL

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
<b>4. (Contd)</b>					
potable water	600	LF	7.00	4200	
sanitary (incl. treatment)	600	LF	13.00	7800	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$128,063,200
<b>5. Buildings/Structures</b>					
control/administration	11,200	SF	82.00	918,400	
maint./fire/warehouse	8,000	SF	72.00	576,000	
heating plant	1	Lot		126,391,800	
guard house	120	SF	100.00	12,000	
all other	2500	SF	66.00	165,000	
					\$6,190,900
<b>6. Electrical</b>					
substation	1	Lot		222,300	
distribution	1	Lot		3,897,000	
emergency (diesel gen.)	1	Lot		290,800	
exterior lighting	1	Lot		302,600	
power line to site	1	Lot		166,000	
all other	1	Lot		1,312,200	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Northville, NY (Steel Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

MODULE I - STORAGE SITE FACILITIES (Contd)

7. Instrumentation

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
microprocessor	1	Lot		523,800	
control panels/displays	1	Lot		253,500	
security	1	Lot		519,500	
all other	1	Lot		1,081,600	
8. All Other Storage Site Items	1	Lot			\$1,024,000

\$2,378,400

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate

(In Module I)

2. Dock

N/A

dock structure

dredging

loading arms

fire water and foam

control center

electrical (incl nav aids)

fenders/dolphins

all other

HNDTR-80-45-SP

Sheet 4 of 4

## MODULAR COST (1980 \$)

Location: Rock Hill, NY (Steel Tanks)STORAGE CAPACITY: 20,000,000 BBLs 6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
<b>3. Terminal</b>					\$224,100
de-ballasting (In Module I)					
surge tanks				N/A	
purge tanks	1	Lot		146,300	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical	1	Lot		77,800	
all other				N/A	
					N/A
<b>4. All Other Dock/Terminal Items</b>					
<b>MODULE 3 - TRANSFER FACILITIES</b>					
<b>1. Real Estate</b>					(In Module I)
<b>2. Pipeline</b>					1,676,000
pipe (incl cathodic protection)	1200	LF	190.08	228,100	
heaters Tape	1	Lot		64,500	
custody transfer metering	1	Lot		519,200	
launcher/receiver	1	Lot		864,200	
cycling capability				N/A	
all other				N/A	
<b>3. All Other Transfer Facility Items</b>					
TOTAL MODULES I + II + III				<b>TOTAL =</b>	\$302,399,400
I - \$300,499,300					\$15.12/BBL
II - \$224,100					
III - \$1,676,000					

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Northville, NY (Concrete Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
1. Real Estate	1	Lot			\$5,109,000
2. Site Preparation					\$20,876,300
clear, cut, fill, grade	170	AC	38,488	15,043,000	
roads	84,000	SY	27.00	2,268,000	
dikes				N/A	
ponds	16.8	AC	81,637	1,371,500	
fences	13,000	LF	17.60	228,800	
all other	1	Lot		1,965,000	
3. Storage Tanks					\$115,626,300
foundations (In Site Preparation					
tank fabrication and erection	20,000,000	BBL	4.42	88,400,000	
heaters	1	Lot		11,626,300	
insulation				N/A	
all other (Dewatering & Testing)	1	Lot		15,600,000	
4. Piping Systems					\$21,625,500
piping (incl. valves, fittings, etc.) oil	12,750	LF	362.73	4,624,800	
pumps (oil)	32	Ta	32,478	1,039,300	
fire water	32,576	LF	60.65	1,975,700	
fire foam	1	Lot		7,980,000	
heat distribution	22,800	LF	262.88	5,993,700	

HNDTR-80-45-SP



Sheet 2 of 4

## MODULAR COST (1980 \$)

Location: Northville, NY (Concrete Tanks)

STORAGE CAPACITY: 20,000,000 BBL'S #6 OIL

## MODULE I - STORAGE SITE FACILITIES

## 4. (Contd)

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
potable water	600	LF	7.00	4200	
sanitary (incl. treatment)	600	LF	13.00	7800	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$84,975,000

## 5. Buildings/Structures

control/administration	11,200	SF	82.00	918,400	
maint./fire/warehouse	8,000	SF	72.00	576,000	
heating plant	1	Lot		83,303,600	
guard house	120	SF	100.00	12,000	
all other	2500	SF	66.00	165,000	

## 6. Electrical

substation	1	Lot		222,300	
distribution	1	Lot		11,165,500	
emergency (diesel gen.)	1	Lot		290,800	
exterior lighting	1	Lot		302,600	
power line to site	1	Lot		166,000	
all other	1	Lot		1,634,000	
					\$13,781,200

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Northville, NY (Concrete Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					\$3,677,500
microprocessor	1	Lot		747,300	
control panels/displays	1	Lot		186,100	
security	1	Lot		519,500	
all other	1	Lot		2,224,600	
8. All Other Storage Site Items	1	Lot			\$1,510,700

**MODULE 2 - DOCK/TERMINAL FACILITIES**

1. Real Estate (In Module 1)

2. Dock

N/A

dock structure

dredging

loading arms

fire water and foam

control center

electrical (incl nav aids)

fenders/dolphins

all other

HNDTR-80-45-SP

**Location:** Northville, NY (concrete Tanks)

STORAGE CAPACITY: 20,000,000 BLS #6 oil

### 3. Terminal

de-ballasting (In Module I)

surge tanks

purge tanks

booster pumps

control center

fire water and foam

electrical

all other

#### 4. All Other Dock/Terminal Items

## 1. Real Estate (In Module I)

## 2. Pipeline

pipe (incl cathodic protection)

heaters tape

custody transfer metering

launcher/receiver

cycling capability

all other

### 3. All Other Transfer Facility Items

I -	267,181,500
II -	261,900
III -	1,993,600
<b>TOTAL MODULES I + II + III</b>	

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
<b>3. Terminal</b>					
de-ballasting (In Module I)					\$261,900
surge tanks				N/A	
purge tanks	1	Lot		161,700	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical	1	Lot		100,200	
all other				N/A	
<b>4. All Other Dock/Terminal Items</b>					
<b>MODULE 3 - TRANSFER FACILITIES</b>					
<b>1. Real Estate (In Module I)</b>					
<b>2. Pipeline</b>					
pipe (incl cathodic protection)	1200	LF	249.30	299,200	
heaters tape	1	Lot		64,500	
custody transfer metering	1	Lot		519,200	
launcher/receiver	1	Lot		1,110,700	
cycling capability				N/A	
all other				N/A	
<b>3. All Other Transfer Facility Items</b>					
TOTAL MODULES I + II + III				TOTAL =	\$269,437,000 \$13.47/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Portland, Maine (Rock Mine)

STORAGE CAPACITY: 20,000,000 BBLs # 6 Oil

HNDTR-80-45-SP

MODULE 1 - STORAGE SITE FACILITIES					QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate					1	Lot		4,360,000	\$4,360,000
2. Site Preparation									362,400
clear, cut, fill, grade					7	Acres	10,685	74,800	
roads					3000	SY	21.00	63,000	
dikes								N/A	
ponds								N/A	
fences					3000	LF	14.00	42,000	
all other					1	Lot		182,600	
3. Storage Tanks									\$160,026,000
foundations								N/A	
tank fabrication and erection					20,000,000	BBL	6.9509	139,018,000	
heaters					1	Lot		19,508,000	
insulation								N/A	
all other					1	Lot		1,500,000	
4. Piping Systems									\$5,480,800
piping (incl. valves, fittings, etc.) oil					10,240	LF	281.75	2,885,100	
pumps (oil)					13	Ea	116,800	1,518,400	
fire water ) Combined System					1	Lot		1,072,200	
fire foam )									
heat distribution (In Tank Heating)									

Sheet 2 of 4

## MODULAR COST (1980 \$)

Location: Portland, Maine (Rock Mine)

STORAGE CAPACITY: 20,000,000 ECLS # 6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES					
4. (Contd)					
potable water	600	LF	5.33	3200	
sanitary (incl. treatment)	1	Lot		1900	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$155,302,400
5. Buildings/Structures					
control/administration	11,200	SF	63.00	705,600	
maint./fire/warehouse	8000	SF	55.00	440,000	
heating plant	1	Lot		154,072,500	
guard house	120	SF	77.00	9,300	
all other	1500	SF	50.00	75,000	
					\$7,350,000
6. Electrical					
substation	1	Lot		1,400,900	
distribution	1	Lot		5,164,100	
emergency (diesel gen.)	1	Lot		223,400	
exterior lighting	1	Lot		23,400	
power line to site	1	Lot		3,800	
all other	1	Lot		534,400	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Portland, Maine (Rock Mine)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

MODULE I - STORAGE SITE FACILITIES (Contd)					SUBTOTAL
7. Instrumentation					\$4,512,600
microprocessor	1	Lot		298,300	
control panels/displays	1	Lot		190,800	
security	1	Lot		96,500	
all other	1	Lot		3,927,000	
8. All Other Storage Site Items	1	Lot		428,800	\$428,800

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate					N/A
2. Dock					\$656,600
dock structure	1	Lot		250,000	
dredging				N/A	
loading arms	1	Lot		150,000	
fire water and foam				N/A	
control center				N/A	
electrical (incl nav aids)	1	Lot		256,600	
fenders/dolphins				N/A	
all other				N/A	

HNDTR-80-45-SP

MODULAR COST (1980 \$)

Sheet 4 of 4

HNDTR-80-45-SP

Location: Portland, Maine (Rock Mine)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
3. Terminal					
de-ballasting	1	Lot		537,900	
surge tanks				N/A	
purge tanks	2	Ea	378,000	756,000	
booster pumps (In Module I)					
control center				N/A	
fire water and foam				N/A	
electrical (In Dock Item)					
all other				N/A	
4. All Other Dock/Terminal Items				N/A	
<b>MODULE 3 - TRANSFER FACILITIES</b>					
1. Real Estate	1	Lot		298,000	\$298,000
2. Pipeline					\$5,670,400
pipe (incl cathodic protection)	21,000	LF	189.38	3,977,000	
heaters- Tape	1	Lot		578,000	
custody transfer metering	1	Lot		215,800	
launcher/receiver	2	Ea	449,800	899,600	
cycling capability				N/A	
all other				N/A	
3. All Other Transfer Facility Items					N/A
TOTAL MODULES I + II + III				TOTAL =	\$345,741,900
I - \$337,823,000					\$17.29/BBL
II - \$1,950,500					
III - \$5,968,400					

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: West Deptford, II, N.J. (Steel Tanks) STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate	1	Lot			\$5,903,000
2. Site Preparation					\$9,861,700
clear, cut, fill, grade	196	AC	19,096	3,742,800	
roads	60,000	SY	24.00	1,440,000	
dikes				N/A	
ponds	32.1	AC	79,065	2,538,000	
fences	17,000	LF	15.50	263,500	
all other	1	Lot		1,877,400	
3. Storage Tanks					\$125,502,200
foundations	1	Lot		10,323,200	
tank fabrication and erection	20,000,000	BBL	4.87	97,400,000	
heaters	1	Lot		17,079,000	
insulation				N/A	
all other	1	Lot		700,000	
4. Piping Systems					\$15,136,400
piping (incl. valves, fittings, etc.) oil	10,000	LF	216.40	2,164,000	
pumps (oil)	16	Ea	239,531	3,832,500	
fire water	33,416	LF	41.55	1,388,500	
fire foam	1	Lot		3,528,000	
heat distribution	17,700	LF	233.43	4,131,700	

HNDTR-80-45-SP



## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: W. Deptford, II, N.J. (Steel Tanks) STORAGE CAPACITY: 20,000,000 EBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES					
4. (Contd)					
potable water	5200	LF	6.10	31,700	
sanitary (incl. treatment)	5200	LF	11.54	60,000	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$111,996,600
5. Buildings/Structures					
control/administration	11,200	SF	73.00	817,600	
maint./fire/warehouse	8,000	SF	64.00	512,000	
heating plant	1	Lot		110,511,400	
guard house	120	SF	88.00	10,600	
all other	2500	SF	58.00	145,000	
					\$7,789,000
6. Electrical					
substation	1	Lot		1,004,600	
distribution	1	Lot		4,949,500	
emergency (diesel gen.)	1	Lot		257,100	
exterior lighting	1	Lot		299,800	
power line to site	1	Lot		4,300	
all other	1	Lot		1,273,700	

## MODULAR COST (1980 \$)

Location: W. Deptford, II, N.J. (Steel Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					\$1,744,300
microprocessor	1	Lot		463,200	
control panels/displays	1	Lot		224,100	
security	1	Lot		459,400	
all other	1	Lot		597,600	
8. All Other Storage Site Items	1	Lot			\$1,036,600
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate	1	Lot			\$929,000
2. Dock					\$5,305,300
dock structure	1	Lot		1,272,200	
dredging	1	Lot		2,267,500	
loading arms	1	Lot		505,200	
fire water and foam (In Mod. I)					
control center	1	Lot		53,000	
electrical (incl nav aids)	1	Lot		225,200	
fenders/dolphins	1	Lot		982,200	
all other				N/A	

HNDTR-80-45-SP

# MODULAR COST (1980 \$)

Sheet 4 of 4

Location: West Deptford, II, N.J. (Steel Tanks) STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

HNDTR-80-45-SP

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
<b>3. Terminal</b>					
de-ballasting - In Module I-					
surge tanks				N/A	
purge tanks	1	Lot		204,000	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical (with Dock Elect.)					
all other				N/A	
<b>4. All Other Dock/Terminal Items</b>					N/A
<b>MODULE 3 - TRANSFER FACILITIES</b>					
<b>1. Real Estate (In Module I)</b>					\$1,444,000
<b>2. Pipeline</b>					
pipe (incl cathodic protection)	1000	LF	173.20	173,200	
heaters Tape	1	Lot		47,500	
custody transfer metering	1	Lot		459,100	
launcher/receiver	1	Lot		764,200	
cycling capability				N/A	
all other				N/A	
<b>3. All Other Transfer Facility Items</b>					
TOTAL MODULES I + II + III	I - \$278,969,800				\$286,852,100
	II - 6,438,300				\$14.34/BBL
	III - 1,444,000				
				TOTAL -	

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: West Deptford, N.H. IV (Steel Tanks) STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

					UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>								
1. Real Estate	1		Lot					\$5,828,000
2. Site Preparation								\$8,269,200
clear, cut, fill, grade	193		AC		14,731		2,843,000	
roads	61,000		SY		24.00		1,464,000	
dikes							N/A	
ponds	16.1		AC		100,435		1,617,000	
fences	14,000		LF		15.50		217,000	
all other	1		Lot				2,128,200	
3. Storage Tanks								\$117,839,800
foundations	1		Lot				2,660,800	
tank fabrication and erection	20,000,000		BBL		4.87		97,400,000	
heaters	1		Lot				17,079,000	
insulation							N/A	
all other	1		Lot				700,000	
4. Piping Systems								\$15,435,600
piping (incl. valves, fittings, etc.) oil	7300		LF		234.50		1,711,900	
pumps (oil)	16		Ea		357,131		5,714,100	
fire water	33,876		LF		52.32		1,772,400	
fire foam	16		Ea		220,499		3,528,000	
heat distribution	10,400		LF		251.67		2,617,400	

HNDTR-80-45-SP

## MODULAR COST (1980 \$)

Sheet 2 of 4

Location: W. Deptford, N.J. IV (Steel Tanks)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES					
4. (Contd)					
potable water	5200	LF	6.10	31,700	
sanitary (incl. treatment)	5200	LF	11.55	60,100	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$108,019,000
5. Buildings/Structures					
control/administration	11,200	SF	73.00	817,600	
maint./fire/warehouse	8000	SF	64.00	512,000	
heating plant	1	Lot		106,533,800	
guard house	120	SF	88.00	10,600	
all other	2500	SF	58.00	145,000	
					\$8,771,700
6. Electrical					
substation	1	Lot		1,004,600	
distribution	1	Lot		6,339,800	
emergency (diesel gen.)	1	Lot		257,100	
exterior lighting	1	Lot		82,300	
power line to site	1	Lot		4,300	
all other	1	Lot		1,083,600	

MODULAR COST (1980 \$)

Location: W. Deptford, N.J., IV (Steel Tanks) STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES (Contd)				
7. Instrumentation				\$2,201,900
microprocessor	1	Lot	463,100	
control panels/displays	1	Lot	224,200	
security	1	Lot	459,300	
all other	1	Lot	1,055,300	
8. All Other Storage Site Items	1	Lot		\$980,100

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate	1	Lot		\$929,000
2. Dock				\$5,326,000
dock structure	1	Lot	1,272,200	
dredging	1	Lot	2,267,500	
loading arms	1	Lot	505,200	
fire water and foam (In Module I)				
control center	1	Lot	53,000	
electrical (incl nav aids)	1	Lot	245,900	
fenders/dolphins	1	Lot	982,200	
all other			N/A	

# MODULAR COST (1980 \$)

Sheet 4 of 4

Location: W. Deptford, N.J., IV (Steel Tanks) STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

HNDTR-80-45-SP

## MODULE II - DOCK/TERMINAL FACILITIES (Contd)

### 3. Terminal

de-ballasting (In Module I)

surge tanks

purge tanks

booster pumps

control center

fire water and foam

electrical w/Docks

all other

### 4. All Other Dock/Terminal Items

## MODULE 3 - TRANSFER FACILITIES

1. Real Estate

2. Pipeline

pipe (incl cathodic protection)

heaters Tape

custody transfer metering

launcher/receiver

cycling capability

all other

### 3. All Other Transfer Facility Items

TOTAL MODULES I + II + III I- 267,345,300  
II- 6,459,000  
III- 4,074,600

QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
				\$204,000
			N/A	
2	EA	102,000	204,000	
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	
1	Lot		245,000	\$245,000
				\$3,829,600
13,500	LF	145.55	1,964,900	
1	Lot		641,400	
1	Lot		459,100	
1	Lot		764,200	
			N/A	
			N/A	
			TOTAL =	\$277,878,900 \$13.89/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Harpswell, Maine (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

## MODULE 1 - STORAGE SITE FACILITIES

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
1. Real Estate	1	Lot			\$5,154,000
2. Site Preparation					\$12,113,800
clear, cut, fill, grade	170	Acres	40,752	6,927,800	
roads	46,000	SY	21.00	966,000	
dikes				N/A	
ponds	20.7	Acres	80,918	1,675,000	
fences	12,000	LF	13.50	162,000	
all other	1	Lot		2,387,000	
3. Storage Tanks					\$52,952,300
foundations				N/A	
tank fabrication and erection	1	Lot		42,385,400	
heaters	1	Lot		4,466,900	
insulation				N/A	
all other	1	Lot		6,100,000	
4. Piping Systems					\$9,942,900
piping (incl. valves, fittings, etc.) oil	6700	LF	273.62	1,833,300	
pumps (oil)	16	Ea	43,044	688,700	
fire water	29,926	LF	46.50	1,391,500	
fire foam	1	Lot		3,066,000	
heat distribution	17,200	LF	171.40	2,948,000	

HNDTR-80-45-SP



## MODULAR COST (1980' \$)

Sheet 2 of 4

Location: Harpswell, Maine (Concrete Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE I - STORAGE SITE FACILITIES</b>					
<b>4. (Contd)</b>					
potable water	1000	LF	5.30	5300	
sanitary (incl. treatment)	1000	LF	10.10	10,100	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
<b>5. Buildings/Structures</b>					\$33,305,000
control/administration	11,200	SF	64.00	716,800	
maint./fire/warehouse	8,000	SF	56.00	448,000	
heating plant	1	Lot		32,006,100	
guard house	120	SF	76.00	9,100	
all other	1500	SF	50.00	125,000	
					\$4,737,400
<b>6. Electrical</b>					
substation	1	Lot		400,000	
distribution	1	Lot		2,994,600	
emergency (diesel gen.)	1	Lot		223,400	
exterior lighting	1	Lot		108,400	
power line to site	1	Lot		2,700	
all other	1	Lot		1,008,300	

# MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Harpswell, Maine (Concrete)

STORAGE CAPACITY: 10,000,000 BBL'S #6 OIL

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE 1 - STORAGE SITE FACILITIES (Contd)					
7. Instrumentation					
microprocessor	1	Lot		401,600	\$1,826,700
control panels/displays	1	Lot		194,800	
security	1	Lot		399,200	
all other	1	Lot		831,100	
8. All Other Storage Site Items	1	Lot			\$1,064,600
MODULE 2 - DOCK/TERMINAL FACILITIES					
1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

HNDTR-80-45-SP

MODULAR COST (1980 \$)

Sheet 4 of 4

Location: Harpswell, Maine (Concrete Tanks) STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

HNDTR-80-45-SP

MODULE II - DOCK/TERMINAL FACILITIES (Contd)

3. Terminal

de-ballasting

surge tanks

purge tanks

booster pumps

control center

fire water and foam

electrical

all other

4. All Other Dock/Terminal Items

MODULE 3 - TRANSFER FACILITIES

1. Real Estate

2. Pipeline

pipe (incl cathodic protection)

heated tape

custody transfer metering

launcher/receiver

cycling capability

all other

3. All Other Transfer Facility Items

TOTAL MODULES I + II + III I- 121,096,700  
II- 106,700  
III- 1,559,000

QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
				\$106,700
			N/A	
			N/A	
2	Ea	48,600	97,200	
			N/A	
			N/A	
			N/A	
1	Lot		9,500	
			N/A	
1	Lot			\$40,500
				\$1,518,500
2400	LF	217.92	523,000	
1	Lot		66,000	
1	Lot		399,000	
1	Lot		530,500	
			N/A	
			N/A	
			TOTAL =	\$122,762,400 \$12.28/BBL

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Harpswell, Maine (Steel Tanks)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>					
1. Real Estate	1	Lot			\$3,183,000
2. Site Preparation					\$5,040,600
clear, cut, fill, grade	105	AC	15,115	1,587,100	
roads	27,000	SY	21.00	567,000	
dikes				N/A	
ponds	17.9	AC	81,285	1,455,000	
fences	10,000	LF	13.50	135,000	
all other	1	Lot		1,256,500	
3. Storage Tanks					\$55,648,200
foundations	1	Lot		2,005,100	
tank fabrication and erection	10,008,000	BBL	4.40	44,035,200	
heaters	1	Lot		2,067,900	
insulation				N/A	
all other	1	Lot		540,000	
4. Piping Systems					\$7,429,600
piping (incl. valves, fittings, etc.) oil	4100	LF	475.84	1,950,900	
pumps (oil)	12	Ea	70,083	841,000	
fire water	25,726	LF	48.13	1,238,200	
fire foam	1	Lot		2,035,600	
heat distribution	5600	LF	240.80	1,348,500	

HNDTR-80-45-SP

Sheet 2 of 4

## MODULAR COST (1980' \$)

Location: Harpswell, Maine (Steel Tanks) STORAGE CAPACITY: 10,000,000 BBL'S #6 Oil

## MODULE I - STORAGE SITE FACILITIES

## 4. (Contd)

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
potable water	1000	LF	5.30	5,300	
sanitary (incl. treatment)	1000	LF	10.10	10,100	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$52,187,200
5. Buildings/Structures					
control/administration	11,200	SF	64.00	716,800	
maint./fire/warehouse	8,000	SF	56.00	448,000	
heating plant	1	Lot		50,888,300	
guard house	120	SF	76.00	9,100	
all other	2500	SF	50.00	125,000	
					\$3,064,800
6. Electrical					
substation	1	Lot		400,000	
distribution	1	Lot		2,172,800	
emergency (diesel gen.)	1	Lot		132,900	
exterior lighting	1	Lot		144,700	
power line to site	1	Lot		2,700	
all other	1	Lot		211,700	

MODULAR COST (1980 \$)

Location: HARPSWELL, MAINE (STEEL TANKS)

STORAGE CAPACITY: 10,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
MODULE I - STORAGE SITE FACILITIES (Contd)					
7. Instrumentation					\$1,050,600
microprocessor	1	Lot		182,900	
control panels/displays	1	Lot		114,700	
security	1	Lot		318,600	
all other	1	Lot		434,400	
8. All Other Storage Site Items	1	Lot			\$776,200

MODULE 2 - DOCK/TERMINAL FACILITIES

1. Real Estate					N/A
2. Dock					N/A
dock structure					
dredging					
loading arms					
fire water and foam					
control center					
electrical (incl nav aids)					
fenders/dolphins					
all other					

MODULAR COST (1980 \$)

Sheet 4 of 4

Location: Harpswell, Maine (Steel Tanks)

STORAGE CAPACITY: 10,000,000 BBL 6 OIL

HNDTR-80-45-SP

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
3. Terminal					\$106,700
de-ballasting					
surge tanks				N/A	
purge tanks	2	Ea	48,600	97,200	
booster pumps				N/A	
control center				N/A	
fire water and foam				N/A	
electrical	1	Lot		9,500	
all other				N/A	
4. All Other Dock/Terminal Items					
<b>MODULE 3 - TRANSFER FACILITIES</b>					
1. Real Estate	1	Lot			\$40,500
2. Pipeline					\$1,736,000
pipe (incl cathodic protection)	2400	LF	221.58	531,800	
heaters	1	Lot		210,900	
custody transfer metering	1	Lot		463,000	
launcher/receiver	1	Lot		530,300	
cycling capability				N/A	
all other				N/A	
3. All Other Transfer Facility Items					
TOTAL MODULES I + II + III				TOTAL =	\$130,263,400
I- \$128,380,200					\$13.03/BBL
II- \$106,700					
III- \$1,776,500					

# MODULAR COST (1980 \$)

Sheet 1 of 4

Location: Brooksville, Maine (Rock Mine)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

					UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES</b>							
1. Real Estate	1		Lot				\$5,225,000
2. Site Preparation							\$1,992,800
clear, cut, fill, grade	168		AC		8.476	1,424,000	
roads	8000		SY		21.00	168,000	
dikes						N/A	
ponds						N/A	
fences	5300		LF		14.00	74,200	
all other	1		Lot			326,600	
3. Storage Tanks							\$160,026,100
foundations						N/A	
tank fabrication and erection	1		Lot			139,018,100	
heaters	1		Lot			19,508,000	
insulation						N/A	
all other	1		Lot			1,500,000	
4. Piping Systems							\$4,990,300
piping (incl. valves, fittings, etc.) oil	10.240		LF		281.75	2,885,200	
pumps (oil)	1		Lot			1,027,800	
fire water							
fire foam	1		Lot			1,072,200	
heat distribution (In Tank Heating)							

HNDTR-80-45-SP



Sheet 2 of 4

## MODULAR COST (1980 \$)

Location: Brooksville, Maine (Mine)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE I - STORAGE SITE FACILITIES</b>					
<b>4. (Contd)</b>					
potable water	600	LF	5.33	3200	
sanitary (incl. treatment)	1	Lot		1900	
inert gas				N/A	
vapor recovery				N/A	
all other				N/A	
					\$155,302,300
<b>5. Buildings/Structures</b>					
control/administration	11,200	SF	63.00	705,600	
maint./fire/warehouse	8,000	SF	55.00	440,000	
heating plant	1	Lot		154,072,500	
guard house	120	SF	77.00	9,200	
all other	1500	SF	50.00	75,000	
					7,297,800
<b>6. Electrical</b>					
substation	1	Lot		1,400,900	
distribution	1	Lot		5,111,900	
emergency (diesel gen.)	1	Lot		223,400	
exterior lighting	1	Lot		23,400	
power line to site	1	Lot		3,800	
all other	1	Lot		534,400	

MODULAR COST (1980 \$)

Sheet 3 of 4

Location: Brooksville, Maine (Mine)

STORAGE CAPACITY: 20,000,000 BBLs #6 Oil

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE 1 - STORAGE SITE FACILITIES (Contd)</b>					
7. Instrumentation					\$4,512,400
microprocessor	1	Lot		298,300	
control panels/displays	1	Lot		190,800	
security	1	Lot		96,400	
all other	1	Lot		3,926,900	
8. All Other Storage Site Items	1	Lot			\$428,900
<b>MODULE 2 - DOCK/TERMINAL FACILITIES</b>					
1. Real Estate	1	Lot			\$929,000
2. Dock					\$7,027,700
dock structure	1	Lot		1,115,800	
dredging	1	Lot		4,371,500	
loading arms	1	Lot		438,000	
fire water and foam - In Module 1 -					
control center	1	Lot		47,000	
electrical (incl nav aids)	1	Lot		195,700	
fenders/dolphins	1	Lot		859,700	
all other				N/A	

HNDTR-80-45-SP

MODULAR COST (1980 \$)

Sheet 4 of 4

Location: Brooksville, Maine (Mine)

STORAGE CAPACITY: 20,000,000 BBL'S #6 OIL

HNDTR-80-45-SP

	QUANTITY	UNIT	UNIT PRICE	COST	SUBTOTAL
<b>MODULE II - DOCK/TERMINAL FACILITIES (Contd)</b>					
3. Terminal					\$717,900
de-ballasting	1	Lot		537,900	
surge tanks				N/A	
purge tanks	2	Ea	90,000	180,000	
booster pumps (In Module I)					
control center				N/A	
fire water and foam				N/A	
electrical (In Dock Item)					
all other				N/A	
4. All Other Dock/Terminal Items					
<b>MODULE 3 - TRANSFER FACILITIES</b>					
1. Real Estate	1	Lot			\$65,500
2. Pipeline					\$1,928,900
pipe (incl cathodic protection)	3600	LF	198.48	714,500	
heaters	1	Lot		99,100	
custody transfer metering	1	Lot		215,800	
launcher/receiver	1	Lot		899,500	
cycling capability				N/A	
all other				N/A	
3. All Other Transfer Facility Items					
TOTAL MODULES I + II + III				TOTAL	\$350,444,600
					\$17.52/BBL

## CHAPTER 3

## LIFE CYCLE COST, ECONOMIC ANALYSIS

## 3-1. INTRODUCTION

This chapter pertains to the life cycle cost economic analysis conducted to identify, and quantify, unique economic advantages that may be attributable to the candidate sites. The analyses include investment, operations, and maintenance costs.

## 3-2. ASSUMPTIONS

a. General Assumptions

(1) The life cycle consists of 20 years of storage after the initial fill.

(2) The candidate No. 6 fuel oil sites with associated options are in Table 3-1.

(3) The costs are displayed in constant first quarter CY80 dollars, escalated or inflated dollars, and discounted or present worth dollars. Escalation and discount rates of 10 percent were used for comparative purposes only.

(4) The product cost of initial fill is assumed to be the same for each comparable site and, therefore, does not affect the analysis.

(5) Investment costs are composed of real estate, environmental impact statement, site survey, core borings, design and construction costs.

b. Drawdown and Refill

East Coast No. 6 fuel oil distribution is made to the east coast users by waterborne means. For this analysis, it is assumed that No. 6 fuel oil is distributed to the users during drawdown and will be replaced by the recipients when conditions return to normal. In effect No. 6 fuel oil is traded rather than sold. A drawdown is assumed to occur at 5-year intervals.

c. Operations and Maintenance

(1) For operational and maintenance purposes, a No. 6 fuel oil site is to be operated and maintained on a self-supporting basis.

Where existing security or fire protection facilities and personnel are available to support a site, such resources are considered in the analyses. Local electrical power rates were also considered. The cost of spare parts was assumed to be seven percent of the construction costs of the active functional equipment of each site.

(2) For all options studied, the basic manpower level was determined for the standby mode of operation and maintenance. Any additional manpower required for embargo response was assumed to be satisfied through the use of overtime.

TABLE 3-1

SITE	STORAGE CAPACITY		TANKS		MINE (M)
	10 MMB	20 MMB	Steel (ST)	Concrete (CC)	
Portsmouth, VA	X		X	X	
Canaveral, FL	X		X		
Calverton, NY	X	X		X	
Portland, ME		X			X
Northville, NY		X	X	X	
West Deptford II, NJ		X	X		
Harpswell, ME	X		X	X	
Brooksville, ME		X			X
West Deptford IV, NJ		X		X	

d. Investment and Salvage

(1) Construction costs used are those shown for each site in Volume II, Chapter 2. Real estate costs are also shown for the various sites.

(2) Design costs were based on six percent of the construction cost. The EIS, site survey, core borings, etc., were estimated to be \$689,134.

(3) Twenty years of operational site usage is not expected to appreciably degrade the site's functional use. Its salvage value is primarily determined by the demand for such a site at the time of salvage. Thus, no salvage value is considered for any of the sites.

3-3. DISCUSSION

a. Life Cycle Profile

A typical life cycle mission profile for a No. 6 fuel oil site is depicted in Table 3-2. Site operation begins in year seven with an embargo drawdown anticipated every fifth year. Upon completion of 20 years of site operation, salvage operations will be completed during the following year.

b. Life Cycle Costs

Summary life cycle costs are presented in Table 3-3. All discount and escalation rates utilized were 10%. Discount calculations were performed in accordance with AR 11-28, "Economic Analysis and Program Evaluation For Resource Management," and the escalation rate was compounded over the life of the sites.

More detailed analysis data are contained in Appendix A, pages 1-60. Pages 1-15 are the Constant 1980 Dollar Analysis sheets, pages 16-30 the Present Worth Analysis sheets, pages 31-45 the 10% Discounted/10% Escalated Dollars Analysis sheets, and pages 46-60 the 10% Escalated Dollars Analysis sheets.

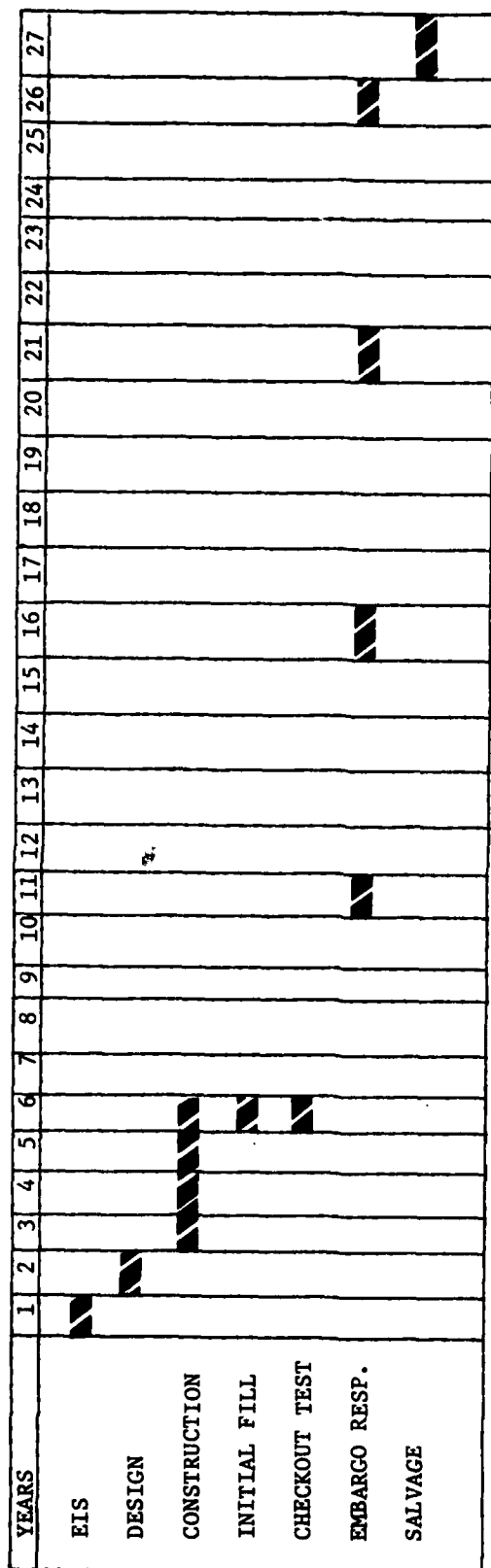
In general, the life cycle costs correlated with the construction and initial investment costs. Where two or more sites had close to the same initial investment cost, exceptions to this general rule were as follows: cut and cover site over a steel tank site due to a lower heating fuel oil cost; short pipeline sites over longer pipeline sites due to a lower spare parts maintenance cost.

3-4. CONCLUSIONS

The least costly 10 MMB storage site is the Portsmouth, NH (CC) site and the least costly 20 MMB storage site is the Northville, NY (CC) site. All life cycle cost analysis methods previously described were used in making these determinations.

TABLE 3-2

## EAST COAST NO. 6 FUEL OIL SITES LIFE CYCLE MISSION PROFILE\*



\* Typical life cycle mission profile for costing purposes.

Site	Const. 1980 \$'s		Present Worth		Disc./Escalated \$'s		Escalated \$'s	
	Cost	Rating	Cost	Rating	Cost	Rating	Cost	Rating
Portsmouth, NH (CC)*	190757217	1	110250301	1	182086529	1	452464195	1
Harpwell, ME (ST)**	198756055	2	116482703	2	189721688	2	468622688	2
Portsmouth, NH (ST)	222194562	3	129525547	3	212094839	3	523201890	4
Harpwell, ME (CC)	226257427	4	138114217	5	215972998	4	482229791	3
Canaveral, FL (ST)	238172623	5	134251328	4	227346173	5	598558095	5
Calverton, NY (CC)	262044067	6	152453616	6	250132973	6	615749684	6
Portsmouth, VA (ST)	295668821	7	179227139	7	2822229329	7	637421559	7
Portsmouth, VA (CC)	308964204	8	186953627	8	294920376	8	664217211	8

## 20 MMB Storage

Site	Const. 1980 \$'s		Present Worth		Disc./Escalated \$'s		Escalated \$'s	
	Cost	Rating	Cost	Rating	Cost	Rating	Cost	Rating
Northville, NY (CC)	382608707	1	233186034	1	365217402	1	815092290	1
West Deptford IV, NJ (ST)	401259609	2	241691721	2	383020535	2	890006211	3
West Deptford II, NJ (ST)	405675219	3	246969445	3	3872335436	3	577460635	2
Northville, NY (ST)	422253651	4	258173363	4	403060303	4	900482833	4
Calverton, NY (CC)	434906086	5	259643204	5	415137627	5	969605411	5
Brookville, ME (M)**	490922394	6	297889603	7	468674557	6	1073338583	6
Portland, ME (M)	499505762	7	297524617	6	476800954	7	1135119107	7

\*Cut and Cover

\*\*Steel Tank

\*\*\*N/A



HNDTR-80-45-S1

APPENDIX A

LIFE CYCLE COST  
YEARLY ANALYSIS

UNIT-101 EAST COAST WPP  
 MAJOR ALTERNATE PORTSMOUTH NH SITE-CONCRETE TANKS 10MMH  
 MINOR ALTERNATE NO.6 FUEL OIL  
 UNADJUSTED ATMMH

YEAR	INITIAL SOLVAGE	INIT FILL	D-M ACCEPT TEST	D-M STANDBY	D-M EMBARGO	SPARE PARTS	ANNUAL COST
1	\$ 404376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 388376.00
2	\$ 7665054.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7665054.00
3	\$ 30497075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 30497075.00
4	\$ 30497075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 30497075.00
5	\$ 30497075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 30497075.00
6	\$ 30497075.00	\$ 12441797.00	\$ 664994.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 43603866.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 2411379.00	\$ 1152956.00	\$ 4309543.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 2411379.00	\$ 1152956.00	\$ 4309543.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 2411379.00	\$ 1152956.00	\$ 4309543.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152956.00	\$ 1898164.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 2411379.00	\$ 1152956.00	\$ 4309543.00
TOTAL	\$ 15004730.00	\$ 12441797.00	\$ 664994.00	\$ 14904160.00	\$ 9645516.00	\$ 23059120.00	\$ 190757317.00

UNADJUSTED ANNUAL COST (\$) = 7336819.84

PROJECT EAST COAST WPK  
 MAJIN ALTERNATE HARRISWELL HE STEEL TANKS 10MMB  
 MINIM ALTERNATE NUB FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	U=M ACCEPT	TEST	D=M STANDBY	D=M EXCHARGE	SPARE PARTS	ANNUAL COST
1	\$ 356876.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 356876.00
2	\$ 7968150.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7968150.00
3	\$ 31759925.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 31759925.00
4	\$ 31759925.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 31759925.00
5	\$ 31759925.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 31759925.00
6	\$ 31759925.00	\$ 12279463.00	\$ 664994.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 48704362.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 331813.00	\$ 715092.00	\$ 5016334.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 331813.00	\$ 715092.00	\$ 5016334.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 331813.00	\$ 715092.00	\$ 5016334.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 0.00	\$ 715092.00	\$ 1498216.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 783124.00	\$ 331813.00	\$ 715092.00	\$ 5016334.00
TOTAL	\$ 148574726.00	\$ 12279463.00	\$ 664994.00	\$ 0.00	\$ 15662480.00	\$ 17272552.00	\$ 14301840.00	\$ 198756055.00

UNIFORM ANNUAL COST (\$) = 7684463.65

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE PORTSMOUTH NH SITE-- STEEL TANK 10 MM  
 MINOR ALTERNATE NO. 6 FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST	INVEST SALVAGE	INIT FILL	O-M ACCEPT	TEST	O-M STANDY	U-M EXHAUST	SPARE PARTS	ANNUAL COST
1	5	38876.00	0.00	0.00	0.00	0.00	0.00	0.00	38876.00
2	5	9152946.00	0.00	0.00	0.00	0.00	0.00	0.00	9152946.00
3	5	36696625.00	0.00	0.00	0.00	0.00	0.00	0.00	36696625.00
4	5	36696625.00	0.00	0.00	0.00	0.00	0.00	0.00	36696625.00
5	5	36696625.00	0.00	0.00	0.00	0.00	0.00	0.00	36696625.00
6	5	36696625.00	12440302.00	664994.00	0.00	0.00	0.00	0.00	49801921.00
7	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
8	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
9	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
10	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
11	5	0.00	0.00	0.00	0.00	777835.00	442871.00	974456.00	6181072.00
12	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
13	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
14	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
15	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
16	5	0.00	0.00	0.00	0.00	777835.00	442871.00	974456.00	6181072.00
17	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
18	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
19	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
20	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
21	5	0.00	0.00	0.00	0.00	777835.00	442871.00	974456.00	6181072.00
22	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
23	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
24	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
25	5	0.00	0.00	0.00	0.00	777835.00	0.00	974456.00	1752291.00
26	5	0.00	0.00	0.00	0.00	777835.00	442871.00	974456.00	6181072.00
TOTAL	5	156120322.00	12440302.00	664994.00	0.00	15556700.00	17715121.00	19489120.00	222194562.00

UNIFORM ANNUAL COST (\$) = 545988.69

HNDTR-80-45-SP

PROJECT EAST COAST RPH  
 MAJOR ALTERNATE HANPSWELL HE CONCRETE TANKS 10MMB  
 MINOR ALTERNATE NWS FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	N=H ACCEPT TEST	U=H STANDBY	N=H EMERGENCY	SPARE PARTS	ANNUAL COST
1	5537876.00	0.00	0.00	0.00	0.00	0.00	5537876.00
2	7499830.00	0.00	0.00	0.00	0.00	0.00	7499830.00
3	39391925.00	0.00	0.00	0.00	0.00	0.00	39391925.00
4	39391975.00	0.00	0.00	0.00	0.00	0.00	39391975.00
5	39391975.00	0.00	0.00	0.00	0.00	0.00	39391975.00
6	39391975.00	12278921.00	664994.00	0.00	0.00	0.00	52335890.00
7	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
8	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
9	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
10	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
11	0.00	0.00	0.00	748942.00	2308444.00	450167.00	3985553.00
12	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
13	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
14	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
15	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
16	0.00	0.00	0.00	748942.00	2308444.00	450167.00	3985553.00
17	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
18	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
19	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
20	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
21	0.00	0.00	0.00	748942.00	2308444.00	450167.00	3985553.00
22	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
23	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
24	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
25	0.00	0.00	0.00	748942.00	0.00	450167.00	1679109.00
26	0.00	0.00	0.00	748942.00	2308444.00	450167.00	3985553.00
TOTAL	170505556.00	12278921.00	664994.00	14978840.00	9225775.00	18603540.00	226237427.00

UNIFORM ANNUAL COST (\$): 4702208.73

PROJECT EAST COAST WPR  
 MAJOR ALTERNATE CANAVERAL FLA. SITE-STEEL TANKS 10MR  
 MINOR ALTERNATE NO.6 FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	Q-M ACCEPT TEST	Q-M STANDBY	Q-M FINISHED	SPACE PARTS	ANNUAL COST
1	\$ 665376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 665376.00
2	\$ 9206528.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9206528.00
3	\$ 36919675.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 36919675.00
4	\$ 36919675.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 36919675.00
5	\$ 36919675.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 36919675.00
6	\$ 36919675.00	\$ 12424739.00	\$ 861456.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5018560.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 4296471.00	\$ 1564940.00	\$ 6804967.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 4296471.00	\$ 1564940.00	\$ 6804967.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 4296471.00	\$ 1564940.00	\$ 6804967.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 0.00	\$ 1564940.00	\$ 2508496.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 943556.00	\$ 4296471.00	\$ 1564940.00	\$ 6804967.00
TOTAL	\$ 157550604.00	\$ 12424739.00	\$ 861456.00	\$ 18871120.00	\$ 17185884.00	\$ 31298800.00	\$ 238172623.00

UNITARY ANNUAL COST (\$) = 9160485.50

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE CALVERTON NY STILL-CONCRETE TANKS 10MMB  
 MINOR ALTERNATE RMA FUEL OIL  
 RECONSTRUCTED METHOD

YEAR	INITIAL SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EMERGENCY	SPARE PARTS	ANNUAL COST
1	\$ 1623774.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1623774.00
2	\$ 10629446.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 10629446.00
3	\$ 42844475.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 42844475.00
4	\$ 42844475.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 42844475.00
5	\$ 12244475.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 12244475.00
6	\$ 42844475.00	\$ 12324745.00	\$ 796812.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 55970432.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 2357617.00	\$ 1911406.00	\$ 5149741.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 2357617.00	\$ 1911406.00	\$ 5149741.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 2357617.00	\$ 1911406.00	\$ 5149741.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 0.00	\$ 1911406.00	\$ 2792164.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 880758.00	\$ 2357617.00	\$ 1911406.00	\$ 5149741.00
TOTAL	\$ 144444742.00	\$ 12324745.00	\$ 796812.00	\$ 17615160.00	\$ 9430444.00	\$ 38226120.00	\$ 262044047.00

UNIFORM ANNUAL COST (\$)= 10078617.94

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE PONTSMOUTH VA. SITE-STEEL TANKS 10MM  
 MINOR ALTERNATE NO. 6 FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	Q=M ACCEPT TEST	Q=M STANDBY	Q=M ERRAND	SPARE PARTS	ANNUAL CUST
1	543376.00	0.00	0.00	0.00	0.00	0.00	543376.00
2	13071278.00	0.00	0.00	0.00	0.00	0.00	13071278.00
3	53027175.00	0.00	0.00	0.00	0.00	0.00	53027175.00
4	53027175.00	0.00	0.00	0.00	0.00	0.00	53027175.00
5	53027175.00	0.00	0.00	0.00	0.00	0.00	53027175.00
6	53027175.00	12862490.00	664994.00	980607.00	0.00	0.00	67135666.00
7	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
8	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
9	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
10	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
11	0.00	0.00	0.00	980607.00	844914.00	930412.00	6360168.00
12	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
13	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
14	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
15	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
16	0.00	0.00	0.00	980607.00	844914.00	930412.00	6360168.00
17	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
18	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
19	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
20	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
21	0.00	0.00	0.00	980607.00	844914.00	930412.00	6360168.00
22	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
23	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
24	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
25	0.00	0.00	0.00	980607.00	0.00	930412.00	1911019.00
26	0.00	0.00	0.00	980607.00	844914.00	930412.00	6360168.00
TOTAL	225523334.00	12862490.00	664994.00	20392747.00	17796394.00	18608200.00	285968821.00

UNIFORM ANNUAL COST (9) 11571477.73



PROJECT EAST COAST RPR  
 MAJUM ALTERNATE PORTSMOUTH VA. SITE-CONCRETE TANKS 10MWS  
 MINUM ALTERNATE NO. 6 FUEL OIL  
 UNADJUSTED METHOD

U.O

YEAR	INVEST-SALVAGE	INIT FILL	Q=M ACCEPT TEST	Q=M STANDBY	Q=M EMERGENCY	SPARE PARTS	ANNUAL COST
1	343376.00	0.00	0.00	0.00	0.00	0.00	343376.00
2	13623054.00	0.00	0.00	0.00	0.00	0.00	13623054.00
3	55322075.00	0.00	0.00	0.00	0.00	0.00	55322075.00
4	55322075.00	0.00	0.00	0.00	0.00	0.00	55322075.00
5	55322075.00	0.00	0.00	0.00	0.00	0.00	55322075.00
6	55322075.00	12442488.00	664994.00	0.00	0.00	0.00	68469957.00
7	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
8	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
9	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
10	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
11	0.00	0.00	0.00	866880.00	2425444.00	1656102.00	4966470.00
12	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
13	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
14	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
15	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
16	0.00	0.00	0.00	866880.00	2425444.00	1656102.00	4966470.00
17	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
18	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
19	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
20	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
21	0.00	0.00	0.00	866880.00	2425444.00	1656102.00	4966470.00
22	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
23	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
24	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
25	0.00	0.00	0.00	866880.00	0.00	1656102.00	2542942.00
26	0.00	0.00	0.00	866880.00	2425444.00	1656102.00	4966470.00
TOTAL	235254730.00	12442488.00	664994.00	17737600.00	9701952.00	33122040.00	308944204.00

UNIFORM ANNUAL COST (\$) = 11463236.62

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE FORTYVILLE NY CONCRETE TANKS 20MH  
 HINDA ALTERNATE NO.6 FUEL OIL  
 UNADJUSTED PMDD

YEAR	INVEST-SALVAGE	INIT FILL	ITEM ACCEPT	TEST	0-M STANDBY	ITEM ENHANCE	SPARE PARTS	ANNUAL CUST
1	5452576.00	0.00	0.00	0.00	0.00	0.00	0.00	5452576.00
2	16205436.00	0.00	0.00	0.00	0.00	0.00	0.00	16205436.00
3	66082000.00	0.00	0.00	0.00	0.00	0.00	0.00	66082000.00
4	66082000.00	0.00	0.00	0.00	0.00	0.00	0.00	66082000.00
5	66082000.00	0.00	0.00	0.00	0.00	0.00	0.00	66082000.00
6	66082000.00	24507753.00	664994.00	0.00	0.00	0.00	0.00	91254747.00
7	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
8	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
9	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
10	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
11	0.00	0.00	0.00	0.00	785815.00	4379657.00	1910762.00	7076229.00
12	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
13	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
14	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
15	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
16	0.00	0.00	0.00	0.00	785815.00	4379657.00	1910762.00	7076229.00
17	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
18	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
19	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
20	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
21	0.00	0.00	0.00	0.00	785815.00	4379657.00	1910762.00	7076229.00
22	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
23	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
24	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
25	0.00	0.00	0.00	0.00	785815.00	0.00	1910762.00	2896577.00
26	0.00	0.00	0.00	0.00	785815.00	4379657.00	1910762.00	7076229.00
TOTAL	24594512.00	24507753.00	664994.00	0.00	15716300.00	17518607.00	34215240.00	382608707.00

UNIFORM ANNUAL COST (A)= 14715719.50

PROJECT EAST GUAST RPH  
 MAJIN ALTERNATE WEST HERTFORD TV NJ-STEEL TANKS 20MMB  
 MININ ALTERNATE MIN FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EMBARK	SPARE PARTS	ANNUAL COST
1	\$ 7345376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7345376.00
2	\$ 16598370.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 16598370.00
3	\$ 67719225.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 67719225.00
4	\$ 67719225.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 67719225.00
5	\$ 67719225.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 67719225.00
6	\$ 67719225.00	\$ 24289763.00	\$ 841456.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 92850444.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 7709121.00	\$ 1502697.00	\$ 10232684.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 7709121.00	\$ 1502697.00	\$ 10232684.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 7709121.00	\$ 1502697.00	\$ 10232684.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 0.00	\$ 1502697.00	\$ 2523563.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1020866.00	\$ 7709121.00	\$ 1502697.00	\$ 10232684.00
TOTAL	\$ 294820646.00	\$ 24289763.00	\$ 841456.00	\$ 20417320.00	\$ 30836444.00	\$ 30053440.00	\$ 401259609.00

UNADJUSTED ANNUAL COST (\$) = 15433061.88

PROJECT EAST COAST WPM  
 MAJOR ALTERNATE WEST DEPTFORD II MJ-STYEL TANKS 20MMH  
 MINOR ALTERNATE NO.6 FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	Q-M ACCEPT TEST	Q-M STANDBY	Q-M EMBARK	SPARE PARTS	ANNUAL COST
1	\$ 7175376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7175376.00
2	\$ 17146957.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 17146957.00
3	\$ 70005003.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 70005003.00
4	\$ 70005003.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 70005003.00
5	\$ 70005003.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 70005003.00
6	\$ 70005003.00	\$ 24119774.00	\$ 841456.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 94966233.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 7565621.00	\$ 1242729.00	\$ 9687079.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 7565621.00	\$ 1242729.00	\$ 9687079.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 7565621.00	\$ 1242729.00	\$ 9687079.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 0.00	\$ 1242729.00	\$ 2301458.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1018729.00	\$ 7565621.00	\$ 1242729.00	\$ 9687079.00
TOTAL	\$ 404842345.00	\$ 24119774.00	\$ 841456.00	\$ 20374580.00	\$ 303462444.00	\$ 256565440.00	\$ 405675219.00

UNIFIED ANNUAL COST (\$) = 15602693.04

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE NORTHVILLE NY-STEEL TANKS 20MMB  
 MINOR ALTERNATE NOB FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMERGENCY	SPARE PARTS	ANNUAL CUST
1	5439376.00	0.00	0.00	0.00	0.00	0.00	5439376.00
2	18186180.00	0.00	0.00	0.00	0.00	0.00	18186180.00
3	74335100.00	0.00	0.00	0.00	0.00	0.00	74335100.00
4	74335100.00	0.00	0.00	0.00	0.00	0.00	74335100.00
5	74335100.00	0.00	0.00	0.00	0.00	0.00	74335100.00
6	74335100.00	24503273.00	664994.00	0.00	0.00	0.00	99503367.00
7	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
8	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
9	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
10	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
11	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
12	0.00	0.00	0.00	843639.00	7647992.00	1432634.00	9924265.00
13	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
14	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
15	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
16	0.00	0.00	0.00	843639.00	7647992.00	1432634.00	9924265.00
17	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
18	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
19	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
20	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
21	0.00	0.00	0.00	843639.00	7647992.00	1432634.00	9924265.00
22	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
23	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
24	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
25	0.00	0.00	0.00	843639.00	0.00	1432634.00	2276273.00
26	0.00	0.00	0.00	843639.00	7647992.00	1432634.00	9924265.00
TOTAL	320265956.00	24503273.00	664994.00	16872780.00	30591944.00	24652640.00	422253651.00

UNIFORM ANNUAL COST (\$)

16240525.04

YEAR	INVEST-SALVAGE	INTL FILL	U-M ACCEPT	TEST	U-M STANDING	U-M EMERGENCY	SPACE PARTS	ANNUAL COST
1	1623536.00	\$ 0.00	\$ 0.00	0.00	\$ 0.00	\$ 0.00	\$ 0.00	1623536.00
2	1616544.00	\$ 0.00	\$ 0.00	0.00	\$ 0.00	\$ 0.00	\$ 0.00	1616544.00
3	1609570.00	\$ 0.00	\$ 0.00	0.00	\$ 0.00	\$ 0.00	\$ 0.00	1609570.00
4	1602637.00	\$ 0.00	\$ 0.00	0.00	\$ 0.00	\$ 0.00	\$ 0.00	1602637.00
5	1595700.00	\$ 0.00	\$ 0.00	0.00	\$ 0.00	\$ 0.00	\$ 0.00	1595700.00
6	1588770.00	2424307.00	\$ 796012.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	993005542.00
7	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
8	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
9	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
10	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
11	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	4592771.00	\$ 2615954.00	6521534.00
12	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
13	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
14	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
15	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
16	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	4592771.00	\$ 2615954.00	6327334.00
17	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
18	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
19	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
20	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
21	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	4592771.00	\$ 2615954.00	6327334.00
22	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
23	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
24	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
25	0.00	\$ 0.00	\$ 0.00	0.00	\$ 920609.00	\$ 0.00	\$ 2615954.00	3734567.00
26	0.00	2424307.00	\$ 796012.00	0.00	\$ 920609.00	4592771.00	\$ 2615954.00	6327334.00
TOTAL	516744740.00	2424307.00	\$ 796012.00	\$ 18412100.00	\$ 19371004.00	\$ 56279140.00	\$ 434900044.00	

[illegible]

PROJECT EAST COAST WPO  
 MAJOR ALTERNATE BRUNNIVILLE PF -LINE 20MMH  
 MINOR ALTERNATE NOB FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST-SALVAGE	PART FILL	U=H ACCEPT TEST	U=H STANDBY	U=H EXHAUST	SPARE PARTS	ANNUAL COST
1	\$ 6562876.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6562876.00
2	\$ 2099262.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2099262.00
3	\$ 86056275.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 86056275.00
4	\$ 86056275.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 86056275.00
5	\$ 86056275.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 86056275.00
6	\$ 86056275.00	\$ 24216724.00	\$ 841456.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 11114455.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 10501329.00	\$ 1542303.00	\$ 13108412.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 10501329.00	\$ 1542303.00	\$ 13108412.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 10501329.00	\$ 1542303.00	\$ 13108412.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 0.00	\$ 1542303.00	\$ 2607083.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1064780.00	\$ 10501329.00	\$ 1542303.00	\$ 13108412.00
TOTAL	\$ 371787236.00	\$ 24216724.00	\$ 841456.00	\$ 21295600.00	\$ 42005318.00	\$ 30846660.00	\$ 490992394.00

UNIFIED ANNUAL COST (\$): 14884322.85

PROJECT EAST COAST APC  
 MAJOR ALTERNATE PORTLAND ME, SITE-INE 20MM  
 MINOR ALTERNATE NO. 6 FUEL OIL  
 UNADJUSTED METHOD

YEAR	INVEST SALVAGE	INTY FILL	0-M ACCEPT TEST	0-M STANDBY	0-M FUEL OIL	SPARE PARTS	ANNUAL COST
1	\$ 5001375.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5001375.00
2	\$ 20810079.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 20810079.00
3	\$ 45270844.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 45270844.00
4	\$ 45270844.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 45270844.00
5	\$ 45270844.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 45270844.00
6	\$ 45270844.00	\$ 24491416.00	\$ 923840.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 110686104.00
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 10794825.00	\$ 1434557.00	\$ 13955643.00
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 10794825.00	\$ 1434557.00	\$ 13955643.00
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 10794825.00	\$ 1434557.00	\$ 13955643.00
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 0.00	\$ 1434557.00	\$ 3200814.00
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1362261.00	\$ 10794825.00	\$ 1434557.00	\$ 13955643.00
TOTAL	\$ 344994846.00	\$ 24491416.00	\$ 923840.00	\$ 27245220.00	\$ 43179300.00	\$ 34771140.00	\$ 499505762.00

UNIFORM ANNUAL COST (\$) = 19211740.00



PROJECT EAST CHAST WDR  
 MAJOR ALTERNATE FORTYFOURTH NW SITE-CONCRETE TANKS 10MMH  
 MINOR ALTERNATE MIN FUEL OIL

INVESTMENT COST (10 PT OF CONSTRUCTION) = 0.00

YEAR	INVEST SALVAGE	UNIT FILL	ITEM ACCEPT TEST	ITEM STANDBY	ITEM FINISHED	SPARE PARTS	ANNUAL COST
1	\$ 444376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 370722.59
2	\$ 744505.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6651493.14
3	\$ 8047075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2409589.02
4	\$ 8047075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 21471406.20
5	\$ 8047075.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 19443048.37
6	\$ 8047075.00	\$ 12441797.00	\$ 664984.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2344307.89
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 102741.14
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 929742.44
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 845257.17
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 768415.61
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 241137.00	\$ 1152454.00	\$ 1585991.96
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 635054.22
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 577322.02
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 524436.20
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 477125.64
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 241137.00	\$ 1152454.00	\$ 944774.22
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 344314.71
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 354471.53
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 325823.23
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 296257.48
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 611444.56
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 241137.00	\$ 1152454.00	\$ 244440.89
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 222342.63
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 202347.85
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 0.00	\$ 1152454.00	\$ 183952.59
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 745208.00	\$ 241137.00	\$ 1152454.00	\$ 374673.87
TOTAL	\$ 130041730.00	\$ 12441797.00	\$ 664984.00	\$ 14704160.00	\$ 964551.00	\$ 23059170.00	\$ 170250301.65

NOTE: ANNUAL COSTS DISCOUNTED TO 10 PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANNUAL COST) = 110250301.65

UNIFORM ANNUAL COST (\$M) 10342369.05

PROJECT EAST COAST RPH  
 MAJOR ALTERNATE HANDELL ME STEEL TANKS 10MM  
 MINOR ALTERNATE SUB FUEL OIL

INVESTMENT COST (100% OF US CONSTRUCTION) = 0.00

YEAR	TEST-SALVAGE	INTL FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EXCHANGE	APACHE PARTS	ANNUAL COST
1	356476.00	0.00	0.00	0.00	0.00	0.00	3404745.27
2	7364150.00	0.00	0.00	0.00	0.00	0.00	6910510.33
3	41759925.00	0.00	0.00	0.00	0.00	0.00	25054746.81
4	51759925.00	0.00	0.00	0.00	0.00	0.00	22777074.92
5	41759925.00	0.00	0.00	0.00	0.00	0.00	20706435.30
6	41759925.00	12279443.00	664994.00	0.00	0.00	0.00	28446151.11
7	0.00	0.00	0.00	743124.00	0.00	715092.00	807242.79
8	0.00	0.00	0.00	743124.00	0.00	715092.00	733675.26
9	0.00	0.00	0.00	743124.00	0.00	715092.00	667154.33
10	0.00	0.00	0.00	743124.00	0.00	715092.00	604508.08
11	0.00	0.00	0.00	743124.00	431413.00	715092.00	2140526.42
12	0.00	0.00	0.00	743124.00	0.00	715092.00	501244.64
13	0.00	0.00	0.00	743124.00	0.00	715092.00	455674.80
14	0.00	0.00	0.00	743124.00	0.00	715092.00	414253.45
15	0.00	0.00	0.00	743124.00	0.00	715092.00	374594.04
16	0.00	0.00	0.00	743124.00	431413.00	715092.00	1329094.50
17	0.00	0.00	0.00	743124.00	0.00	715092.00	311234.75
18	0.00	0.00	0.00	743124.00	0.00	715092.00	282920.64
19	0.00	0.00	0.00	743124.00	0.00	715092.00	257211.80
20	0.00	0.00	0.00	743124.00	0.00	715092.00	233435.27
21	0.00	0.00	0.00	743124.00	431413.00	715092.00	625264.60
22	0.00	0.00	0.00	743124.00	0.00	715092.00	192552.29
23	0.00	0.00	0.00	743124.00	0.00	715092.00	175663.90
24	0.00	0.00	0.00	743124.00	0.00	715092.00	159712.64
25	0.00	0.00	0.00	743124.00	0.00	715092.00	143193.31
26	0.00	0.00	0.00	743124.00	431413.00	715092.00	512425.01
TOTAL	11657726.00	12279443.00	664994.00	15662480.00	17272552.00	14301400.00	116482703.86

NOTES: ANNUAL COSTS DISCOUNTED TO END OF CONSTR.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 116482703.86

UNITARY ANNUAL COST (\$/M) 1069279.02

PROJECT EAST COAST RPH  
MAJOR ALTERNATE PORTSMOUTH NH SITE-- STEEL TANK 10 MMB  
MINOR ALTERNATE NH-6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST SALVAGE	INIT FILL	Q=M ACCEPT TEST	Q=M STANDBY	Q=M EMERGED	SPARE PARTS	ANNUAL COST
1	348876.00	0.00	0.00	0.00	0.00	0.00	371199.82
2	9152946.00	0.00	0.00	0.00	0.00	0.00	7942639.09
3	34896625.00	0.00	0.00	0.00	0.00	0.00	24929253.34
4	46496625.00	0.00	0.00	0.00	0.00	0.00	84311503.07
5	34896625.00	0.00	0.00	0.00	0.00	0.00	23925002.79
6	34896625.00	12440302.00	664994.00	0.00	0.00	0.00	29517440.37
7	0.00	0.00	0.00	777835.00	0.00	974456.00	944162.47
8	0.00	0.00	0.00	777835.00	0.00	974456.00	89529.52
9	0.00	0.00	0.00	777835.00	0.00	974456.00	780299.56
10	0.00	0.00	0.00	777835.00	0.00	974456.00	709163.24
11	0.00	0.00	0.00	777835.00	4428741.00	974456.00	2274749.83
12	0.00	0.00	0.00	777835.00	0.00	974456.00	586250.61
13	0.00	0.00	0.00	777835.00	0.00	974456.00	532955.10
14	0.00	0.00	0.00	777835.00	0.00	974456.00	484504.84
15	0.00	0.00	0.00	777835.00	0.00	974456.00	440458.76
16	0.00	0.00	0.00	777835.00	4428741.00	974456.00	1412440.43
17	0.00	0.00	0.00	777835.00	0.00	974456.00	364015.50
18	0.00	0.00	0.00	777835.00	0.00	974456.00	330923.19
19	0.00	0.00	0.00	777835.00	0.00	974456.00	300439.26
20	0.00	0.00	0.00	777835.00	0.00	974456.00	273490.26
21	0.00	0.00	0.00	777835.00	4428741.00	974456.00	877014.38
22	0.00	0.00	0.00	777835.00	0.00	974456.00	226024.99
23	0.00	0.00	0.00	777835.00	0.00	974456.00	205477.26
24	0.00	0.00	0.00	777835.00	0.00	974456.00	186747.51
25	0.00	0.00	0.00	777835.00	0.00	974456.00	169815.92
26	0.00	0.00	0.00	777835.00	4428741.00	974456.00	545556.93
TOTAL	154124322.00	12440302.00	664994.00	15536700.00	17715124.00	19449120.00	129525547.45

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 129525547.45

UNIFORM ANNUAL COST (\$)= 12197536.11

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00								
YEAR	INVEST-SALVAGE	INIT FILL	DEM_ACCEPT_TEST	U-M STANDBY	U-M EXHAUST	SPARE PARTS	ANNUAL COST	
1	545376.00	0.00	0.00	0.00	0.00	0.00	0	635131.64
2	4206528.00	0.00	0.00	0.00	0.00	0.00	0	7989135.87
3	16919675.00	0.00	0.00	0.00	0.00	0.00	0	29125213.19
4	36919675.00	0.00	0.00	0.00	0.00	0.00	0	28477446.53
5	36919675.00	0.00	0.00	0.00	0.00	0.00	0	24070424.12
6	46019675.00	12424759.00	841456.00	0.00	0.00	0.00	0	29745057.89
7	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	1351617.84
8	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	1226743.49
9	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	1117039.54
10	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	1015490.49
11	0.00	0.00	0.00	943556.00	4294471.00	1564940.00	0	2504354.39
12	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	839248.34
13	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	762445.03
14	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	693593.67
15	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	630539.70
16	0.00	0.00	0.00	943556.00	4294471.00	1564940.00	0	1555007.04
17	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	521107.19
18	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	473733.81
19	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	430447.10
20	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	391515.34
21	0.00	0.00	0.00	943556.00	4294471.00	1564940.00	0	965537.03
22	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	323566.56
23	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	294151.42
24	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	267410.38
25	0.00	0.00	0.00	943556.00	0.00	1564940.00	0	243100.35
26	0.00	0.00	0.00	943556.00	4294471.00	1564940.00	0	599512.53
TOTAL	157551804.00	12424759.00	841456.00	14871120.00	17145884.00	31294400.00	0	134251328.68

ANNUAL COSTS DISCOUNTED TO MID PT CONST.

**TOTAL I.C.C (INVEST COST + TOTAL ANN COST) = 134291320.68**

NO. FILED	ANNUAL COST (\$)	12642567.14
1	100	
2	200	
3	300	
4	400	
5	500	
6	600	
7	700	
8	800	
9	900	
10	1000	
11	1100	
12	1200	
13	1300	
14	1400	
15	1500	
16	1600	
17	1700	
18	1800	
19	1900	
20	2000	
21	2100	
22	2200	
23	2300	
24	2400	
25	2500	
26	2600	
27	2700	
28	2800	
29	2900	
30	3000	
31	3100	
32	3200	
33	3300	
34	3400	
35	3500	
36	3600	
37	3700	
38	3800	
39	3900	
40	4000	
41	4100	
42	4200	
43	4300	
44	4400	
45	4500	
46	4600	
47	4700	
48	4800	
49	4900	
50	5000	
51	5100	
52	5200	
53	5300	
54	5400	
55	5500	
56	5600	
57	5700	
58	5800	
59	5900	
60	6000	
61	6100	
62	6200	
63	6300	
64	6400	
65	6500	
66	6600	
67	6700	
68	6800	
69	6900	
70	7000	
71	7100	
72	7200	
73	7300	
74	7400	
75	7500	
76	7600	
77	7700	
78	7800	
79	7900	
80	8000	
81	8100	
82	8200	
83	8300	
84	8400	
85	8500	
86	8600	
87	8700	
88	8800	
89	8900	
90	9000	
91	9100	
92	9200	
93	9300	
94	9400	
95	9500	
96	9600	
97	9700	
98	9800	
99	9900	
100	10000	

PROJECT EAST QUART RPP  
 MAJOR ALTERNATE HARPSWELL VE CONCRETE TANKS 10MM  
 MINOR ALTERNATE RUA FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	OWN ACCEP TEST	OWN STANBY	OWN EDWARD	SPARE PARTS	ANNUAL COST
1	5337876.00	0.00	0.00	0.00	0.00	0.00	5288154.36
2	7199830.00	0.00	0.00	0.00	0.00	0.00	6421340.08
3	19491925.00	0.00	0.00	0.00	0.00	0.00	31075523.10
4	19491925.00	0.00	0.00	0.00	0.00	0.00	26240511.41
5	19491925.00	0.00	0.00	0.00	0.00	0.00	25682493.10
6	19491925.00	0.00	0.00	0.00	0.00	0.00	31019357.79
7	0.00	12278821.00	664984.00	0.00	0.00	930167.00	904730.84
8	0.00	0.00	0.00	748942.00	0.00	930167.00	822482.58
9	0.00	0.00	0.00	748942.00	0.00	930167.00	747111.53
10	0.00	0.00	0.00	748942.00	0.00	930167.00	679737.67
11	0.00	0.00	0.00	748942.00	2504444.00	930167.00	1466757.61
12	0.00	0.00	0.00	748942.00	0.00	930167.00	961766.67
13	0.00	0.00	0.00	748942.00	0.00	930167.00	510496.97
14	0.00	0.00	0.00	748942.00	0.00	930167.00	46269.97
15	0.00	0.00	0.00	748942.00	0.00	930167.00	422063.61
16	0.00	0.00	0.00	748942.00	2306444.00	930167.00	910741.08
17	0.00	0.00	0.00	748942.00	0.00	930167.00	347412.90
18	0.00	0.00	0.00	748942.00	0.00	930167.00	317102.68
19	0.00	0.00	0.00	748942.00	0.00	930167.00	284275.13
20	0.00	0.00	0.00	748942.00	0.00	930167.00	262048.30
21	0.00	0.00	0.00	748942.00	2306444.00	930167.00	945496.35
22	0.00	0.00	0.00	748942.00	0.00	930167.00	216585.37
23	0.00	0.00	0.00	748942.00	0.00	930167.00	196495.79
24	0.00	0.00	0.00	748942.00	0.00	930167.00	178996.17
25	0.00	0.00	0.00	748942.00	0.00	930167.00	162723.79
26	0.00	0.00	0.00	748942.00	2306444.00	930167.00	351130.11
TOTAL	17050556.00	12278821.00	664984.00	14978840.00	9225776.00	16603340.00	136114217.02

NOTES ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 136114217.02

UNIFORM ANNUAL COST (\$) = 13006336.77

PROJECT EAST COAST RPD  
 MAJOR ALTERNATE CALVERTON HY SITE-CONCRETE TANKS 10MR  
 MINOR ALTERNATE NUB FUEL 011

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	CURRENT SALVAGE	10% FILL	0-6M ACCEPT TEST	0-6M STANDBY	0-6M REPAIR	SPARE PARTS	ANNUAL COST
1	1232776.00	0.00	0.00	0.00	0.00	0.00	1549968.00
2	1042946.00	0.00	0.00	0.00	0.00	0.00	1223324.13
3	823446.00	0.00	0.00	0.00	0.00	0.00	33802643.69
4	423446.00	0.00	0.00	0.00	0.00	0.00	30729674.04
5	0.00	0.00	0.00	0.00	0.00	0.00	27936049.14
6	0.00	0.00	0.00	0.00	0.00	0.00	3317352.25
7	0.00	0.00	0.00	0.00	0.00	0.00	1504462.71
8	0.00	0.00	0.00	0.00	0.00	0.00	1367833.37
9	0.00	0.00	0.00	0.00	0.00	0.00	124357.61
10	0.00	0.00	0.00	0.00	0.00	0.00	1130325.10
11	0.00	0.00	0.00	0.00	0.00	0.00	1695215.17
12	0.00	0.00	0.00	0.00	0.00	0.00	958152.97
13	0.00	0.00	0.00	0.00	0.00	0.00	449229.94
14	0.00	0.00	0.00	0.00	0.00	0.00	77207.29
15	0.00	0.00	0.00	0.00	0.00	0.00	70182.46
16	0.00	0.00	0.00	0.00	0.00	0.00	117479.51
17	0.00	0.00	0.00	0.00	0.00	0.00	580035.50
18	0.00	0.00	0.00	0.00	0.00	0.00	52735.03
19	0.00	0.00	0.00	0.00	0.00	0.00	47934.14
20	0.00	0.00	0.00	0.00	0.00	0.00	435749.26
21	0.00	0.00	0.00	0.00	0.00	0.00	730617.49
22	0.00	0.00	0.00	0.00	0.00	0.00	360156.41
23	0.00	0.00	0.00	0.00	0.00	0.00	327410.92
24	0.00	0.00	0.00	0.00	0.00	0.00	297649.93
25	0.00	0.00	0.00	0.00	0.00	0.00	270590.84
26	0.00	0.00	0.00	0.00	0.00	0.00	453599.44
TOTAL	104405762.00	12324745.00	746812.00	17415160.00	0.00	37224120.00	152453616.84

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 152453616.84

UNIFORM ANNUAL COST (U) = 14354692.82

PROJECT EAST COAST RPR  
MAJUM ALTERNATE PORTSMOUTH VA, SITE-STEEL TANKS 10MM  
MINIMA ALTERNATE NO. 6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	D-M ACCEPT	TEST	D-M STANDBY	U-M ENHANCED	SPARE PARTS	ANNUAL COST
1	343376.00	0.00	0.00	0.00	0.00	0.00	0.00	327769.00
2	13071275.00	0.00	0.00	0.00	0.00	0.00	0.00	11342844.55
3	43027175.00	0.00	0.00	0.00	0.00	0.00	0.00	41832106.50
4	43027175.00	0.00	0.00	0.00	0.00	0.00	0.00	38029187.73
5	43027175.00	0.00	0.00	0.00	0.00	0.00	0.00	34571488.84
6	43027175.00	12482490.00	664994.00	0.00	980607.00	0.00	0.00	39803003.85
7	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	1029667.66
8	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	936079.69
9	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	850981.54
10	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	773619.58
11	0.00	0.00	0.00	0.00	980607.00	4449149.00	930412.00	2340660.09
12	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	639355.02
13	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	581231.84
14	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	528392.54
15	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	480356.89
16	0.00	0.00	0.00	0.00	980607.00	4449149.00	930412.00	1453365.76
17	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	396989.17
18	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	360899.24
19	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	328090.22
20	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	298263.84
21	0.00	0.00	0.00	0.00	980607.00	4449149.00	930412.00	902425.79
22	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	246499.04
23	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	224090.04
24	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	203718.21
25	0.00	0.00	0.00	0.00	980607.00	0.00	930412.00	185198.58
26	0.00	0.00	0.00	0.00	980607.00	4449149.00	930412.00	560335.42
TOTAL	225523354.00	12482490.00	664994.00	0.00	20392747.00	17796596.00	14608240.00	179227139.45

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 179227139.45

UNREPAID ANNUAL COST (\$) = 16877979.27

PROJECT EAST COAST HRR  
 MAJOR ALTERATION PORTSMOUTH VA. SITE-CONCRETE TANKS 10MMH  
 MINOR ALTERATION NO.6 FUEL OIL

0.0

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	VEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EMERGO	SPACE PARTS	ANNUAL COST
1	543776.00	0.00	0.00	0.00	0.00	0.00	327766.00
2	3463054.00	0.00	0.00	0.00	0.00	0.00	11821658.43
3	55422075.00	0.00	0.00	0.00	0.00	0.00	43442508.45
4	55422075.00	0.00	0.00	0.00	0.00	0.00	39675007.88
5	55422075.00	0.00	0.00	0.00	0.00	0.00	36068184.80
6	55422075.00	12442484.00	664994.00	0.00	0.00	0.00	40581941.00
7	0.00	0.00	0.00	886880.00	0.00	1656102.00	1372199.45
8	0.00	0.00	0.00	886880.00	0.00	1656102.00	1656102.00
9	0.00	0.00	0.00	886880.00	0.00	1656102.00	1245635.86
10	0.00	0.00	0.00	886880.00	0.00	1656102.00	1132396.24
11	0.00	0.00	0.00	886880.00	0.00	1656102.00	1029451.15
12	0.00	0.00	0.00	886880.00	242544.00	1656102.00	1828448.35
13	0.00	0.00	0.00	886880.00	0.00	1656102.00	850784.06
14	0.00	0.00	0.00	886880.00	0.00	1656102.00	773481.47
15	0.00	0.00	0.00	886880.00	0.00	1656102.00	703128.97
16	0.00	0.00	0.00	886880.00	0.00	1656102.00	639274.15
17	0.00	0.00	0.00	886880.00	242544.00	1656102.00	1135348.02
18	0.00	0.00	0.00	886880.00	0.00	1656102.00	522714.20
19	0.00	0.00	0.00	886880.00	0.00	1656102.00	440246.55
20	0.00	0.00	0.00	886880.00	0.00	1656102.00	436587.77
21	0.00	0.00	0.00	886880.00	0.00	1656102.00	396897.97
22	0.00	0.00	0.00	886880.00	242544.00	1656102.00	704941.80
23	0.00	0.00	0.00	886880.00	0.00	1656102.00	328014.85
24	0.00	0.00	0.00	886880.00	0.00	1656102.00	1656102.00
25	0.00	0.00	0.00	886880.00	0.00	1656102.00	29815.32
26	0.00	0.00	0.00	886880.00	0.00	1656102.00	271026.60
27	0.00	0.00	0.00	886880.00	0.00	1656102.00	266402.42
28	0.00	0.00	0.00	886880.00	242544.00	1656102.00	43775.81
TOTAL	12442484.00	12442484.00	664994.00	17737600.00	9701452.00	33122740.00	186953627.83

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL (INVEST COST + TOTAL ANN COST) = 186953627.83

UNIFORM ANNUAL COST (\$)= 17405589.56



PROJECT EAST COAST RPR  
MAJOR ALTERNATE NORTHVILLE IN CONCRETE TANKS 20MPH  
MINOR ALTERNATE NOK FUEL OIL

INVESTMENT COST (NO PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	UOM ACCEPT TEST	UOM STANDBY	UOM EQUIP	SPARE PARTS	ANNUAL COST
1	\$ 5452376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5204540.73
2	\$ 16205436.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 14062564.63
3	\$ 66662000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 52130603.91
4	\$ 66662000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 47391639.92
5	\$ 66662000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 43043309.01
6	\$ 66662000.00	\$ 24507753.00	\$ 664994.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 56066471.96
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 1452994.90
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 1320671.73
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 1200792.44
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 1091629.53
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 4379652.00	\$ 1910762.00	\$ 2601183.85
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 922173.16
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 820157.42
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 745597.65
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 677816.05
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 4379652.00	\$ 1910762.00	\$ 1616995.24
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 560176.59
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 509253.23
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 462957.44
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 420676.44
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 4379652.00	\$ 1910762.00	\$ 1004025.61
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 347426.81
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 316204.19
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 287460.17
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 0.00	\$ 1910762.00	\$ 261327.43
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 785815.00	\$ 4379652.00	\$ 1910762.00	\$ 623320.91
TOTAL	\$ 24507753.00	\$ 24507753.00	\$ 664994.00	\$ 15716300.00	\$ 17518609.00	\$ 38215240.00	\$ 233186034.81

NOTES: ANNUAL COSTS DISCOUNTED TO "NO PT CONST.

TOTAL ILC (INVEST COST + TOTAL ANN COST) = 233186034.81

UNIFORM ANNUAL COST (\$) = 21959336.88

PROJECT EAST COAST RPH  
 MAJOR ALTERNATE WEST DEPTCO IV AIR-STEEL TANKS 20MM  
 MINOR ALTERNATE NOS 1 EL OIL

INVESTMENT COST (MID-PT OF CONSTRUCTION) = 0.00

YEAR	REVENUE-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M ENHANC	SPARE PARTS	ANNUAL COST
1	716376.00	0.00	0.00	0.00	0.00	0.00	7011495.27
2	1654030.00	0.00	0.00	0.00	0.00	0.00	14613500.21
3	47713225.00	0.00	0.00	0.00	0.00	0.00	93423376.85
4	47713225.00	0.00	0.00	0.00	0.00	0.00	4856376.95
5	47713225.00	0.00	0.00	0.00	0.00	0.00	4419726.32
6	47713225.00	20249763.00	041456.00	0.00	0.00	0.00	5503237.78
7	0.00	0.00	0.00	1020866.00	0.00	1502497.00	159732.18
8	0.00	0.00	0.00	1020866.00	0.00	1502497.00	1236123.80
9	0.00	0.00	0.00	1020866.00	0.00	1502497.00	1123744.91
10	0.00	0.00	0.00	1020866.00	0.00	1502497.00	1021544.92
11	0.00	0.00	0.00	1020866.00	77091.10	1502497.00	3765017.98
12	0.00	0.00	0.00	1020866.00	0.00	1502497.00	644259.19
13	0.00	0.00	0.00	1020866.00	0.00	1502497.00	767535.63
14	0.00	0.00	0.00	1020866.00	0.00	1502497.00	697759.66
15	0.00	0.00	0.00	1020866.00	0.00	1502497.00	614326.94
16	0.00	0.00	0.00	1020866.00	77091.10	1502497.00	2339276.68
17	0.00	0.00	0.00	1020866.00	0.00	1502497.00	524237.14
18	0.00	0.00	0.00	1020866.00	0.00	1502497.00	476579.24
19	0.00	0.00	0.00	1020866.00	0.00	1502497.00	435253.85
20	0.00	0.00	0.00	1020866.00	0.00	1502497.00	393447.18
21	0.00	0.00	0.00	1020866.00	77091.10	1502497.00	1491845.85
22	0.00	0.00	0.00	1020866.00	0.00	1502497.00	325510.03
23	0.00	0.00	0.00	1020866.00	0.00	1502497.00	295919.21
24	0.00	0.00	0.00	1020866.00	0.00	1502497.00	28016.55
25	0.00	0.00	0.00	1020866.00	0.00	1502497.00	244540.50
26	0.00	0.00	0.00	1020866.00	77091.10	1502497.00	901506.88
TOTAL	24249763.00	24249763.00	241456.00	20417326.00	3083444.00	30053980.00	241691721.75

NOTES: ALL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 241691721.75

UNIT 124 ANNUAL COST (\$)= 22760324.60

PROJECT EAST COAST RPH  
MAJOR ALTERNATE WEST DEPTFIND II NJ-STEEL TANKS 20MMH  
MINOR ALTERNATE NUG FUEL OIL

INVESTMENT COST (WID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMERGENCY	SPARE PARTS	ANNUAL COST
1	7175376.00	0.00	0.00	0.00	0.00	0.00	689222.55
2	17146957.00	0.00	0.00	0.00	0.00	0.00	14879590.79
3	74005001.00	0.00	0.00	0.00	0.00	0.00	55225584.64
4	70005003.00	0.00	0.00	0.00	0.00	0.00	50205076.98
5	70005003.00	0.00	0.00	0.00	0.00	0.00	45640979.08
6	70005003.00	24119774.00	841456.00	0.00	0.00	0.00	56286260.90
7	0.00	0.00	0.00	1018729.00	0.00	1282729.00	1240062.45
8	0.00	0.00	0.00	1018729.00	0.00	1282729.00	1127129.50
9	0.00	0.00	0.00	1018729.00	0.00	1282729.00	1024845.00
10	0.00	0.00	0.00	1018729.00	0.00	1282729.00	931677.27
11	0.00	0.00	0.00	1018729.00	7585621.00	1282729.00	3634624.92
12	0.00	0.00	0.00	1018729.00	0.00	1282729.00	764961.22
13	0.00	0.00	0.00	1018729.00	0.00	1282729.00	699942.92
14	0.00	0.00	0.00	1018729.00	0.00	1282729.00	636168.11
15	0.00	0.00	0.00	1018729.00	0.00	1282729.00	578498.28
16	0.00	0.00	0.00	1018729.00	7585621.00	1282729.00	2259302.26
17	0.00	0.00	0.00	1018729.00	0.00	1282729.00	478097.76
18	0.00	0.00	0.00	1018729.00	0.00	1282729.00	438634.32
19	0.00	0.00	0.00	1018729.00	0.00	1282729.00	395122.11
20	0.00	0.00	0.00	1018729.00	0.00	1282729.00	359201.92
21	0.00	0.00	0.00	1018729.00	7585621.00	1282729.00	1402868.06
22	0.00	0.00	0.00	1018729.00	0.00	1282729.00	296661.09
23	0.00	0.00	0.00	1018729.00	0.00	1282729.00	269873.72
24	0.00	0.00	0.00	1018729.00	0.00	1282729.00	245339.74
25	0.00	0.00	0.00	1018729.00	0.00	1282729.00	223036.13
26	0.00	0.00	0.00	1018729.00	7585621.00	1282729.00	871058.83
TOTAL	594462345.00	24119774.00	841456.00	20374580.00	30382344.00	25654580.00	246969445.40

NOTE: ANNUAL COSTS DISCOUNTED TO WID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 246969445.40

UNIFORM ANNUAL COST (\$) = 23257332.53

[illegible][illegible]

REPORT: ANAL C 79 (ISCUATED) TO CID BY CONAT.

TOTAL: 100 (PROJECT CASES + TOTAL AKA CASES) = 258173343.02

24312415.473

PROJECT EAST COAST RGN  
MAJOR ALTERNATE CALVERTON IN CONCRETE TANKS 20MRP  
MINOR ALTERNATE NUB FUEL OIL

INVESTMENT COST (FID PI OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INJT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EXHAUST	SEAFD PARTS	ANNUAL COST
1	\$ 1424556.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1549736.91
2	\$ 1416444.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1516340.62
3	\$ 7424700.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5857354.62
4	\$ 7424700.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5324450.20
5	\$ 7424700.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4840773.04
6	\$ 7424700.00	\$ 2424307.00	\$ 79412.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5885940.85
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 2012244.54
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1629313.22
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1663012.02
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1511429.11
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 4592771.00	\$ 2413954.00	\$ 3064615.23
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1249425.54
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1135459.59
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 1032599.62
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 938726.93
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 4592771.00	\$ 2413954.00	\$ 1902404.94
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 775407.38
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 705279.44
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 641143.12
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 582875.57
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 4592771.00	\$ 2413954.00	\$ 1181541.84
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 941715.34
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 431923.04
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 394111.86
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 0.00	\$ 2413954.00	\$ 361419.67
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 420609.00	\$ 4592771.00	\$ 2413954.00	\$ 733640.52
TOTAL	\$ 31474750.00	\$ 2424307.00	\$ 79412.00	\$ 12412180.00	\$ 18371074.00	\$ 54279140.00	\$ 259043204.20

NOTES: ANNUAL COSTS DISCOUNTED TO FID BY CONST.

TOTAL LFC (INVEST COST + TOTAL ANN COST) = 259043204.20

UNIFORM ANNUAL COST (\$)= 24394320.14

PROJECT PORT CREST RPR  
 MAJOR ALTERNATE PORTLAND ME. SITE-MINE ZOMMB  
 MINOR ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (-10 PT OF CONSTRUCTION) = 0.00

YEAR	INVEST SALVAGE	INIT FILL	DEM ACCEPT TEST	DEM STANDSTY	DEM ENHANC	SPARE PARTS	ANNUAL COST
1	5001375.00	0.00	0.00	0.00	0.00	0.00	4774039.77
2	20410079.00	0.00	0.00	0.00	0.00	0.00	18054133.02
3	45270488.00	0.00	0.00	0.00	0.00	0.00	67264512.70
4	45270488.00	0.00	0.00	0.00	0.00	0.00	6113193.36
5	45270488.00	0.00	0.00	0.00	0.00	0.00	3559412.15
6	45270488.00	24491416.00	923840.00	0.00	0.00	0.00	65603391.13
7	0.00	0.00	0.00	1362261.00	0.00	1434557.00	1724652.03
8	0.00	0.00	0.00	1362261.00	0.00	1434557.00	1567845.48
9	0.00	0.00	0.00	1362261.00	0.00	1434557.00	1425332.26
10	0.00	0.00	0.00	1362261.00	0.00	1434557.00	1295756.60
11	0.00	0.00	0.00	1362261.00	10794425.00	1434557.00	5180656.87
12	0.00	0.00	0.00	1362261.00	0.00	1434557.00	1070873.22
13	0.00	0.00	0.00	1362261.00	0.00	1434557.00	973521.11
14	0.00	0.00	0.00	1362261.00	0.00	1434557.00	845019.19
15	0.00	0.00	0.00	1362261.00	0.00	1434557.00	64562.90
16	0.00	0.00	0.00	1362261.00	10794425.00	1434557.00	318152.68
17	0.00	0.00	0.00	1362261.00	0.00	1434557.00	644928.02
18	0.00	0.00	0.00	1362261.00	0.00	1434557.00	60440.01
19	0.00	0.00	0.00	1362261.00	0.00	1434557.00	549527.29
20	0.00	0.00	0.00	1362261.00	0.00	1434557.00	499570.26
21	0.00	0.00	0.00	1362261.00	10794425.00	1434557.00	1945801.19
22	0.00	0.00	0.00	1362261.00	0.00	1434557.00	412867.98
23	0.00	0.00	0.00	1362261.00	0.00	1434557.00	375334.53
24	0.00	0.00	0.00	1362261.00	0.00	1434557.00	341213.21
25	0.00	0.00	0.00	1362261.00	0.00	1434557.00	310193.83
26	0.00	0.00	0.00	1362261.00	10794425.00	1434557.00	1233026.50
TOTAL	544449484.00	24491416.00	923840.00	27245220.00	43179300.00	36771140.00	297524617.07

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN. COST) = 297524617.07

UNIFORM ANNUAL COST (\$M) 2461158.05

PROJECT EAST COAST RUM  
 DATE APPROVED 01/01/81 BY 20000  
 NAME APPROVAL FOR EPLC HTL

INVESTMENT COST (FID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FID	0-M ACCEPT TEST	0-M STANDBY	0-M EXHAUST	SPARE PARTS	ANNUAL COST
1	652676.00	0.00	0.00	0.00	0.00	0.00	6264503.45
2	20000262.00	0.00	0.00	0.00	0.00	0.00	18222500.00
3	652676.00	0.00	0.00	0.00	0.00	0.00	6788120.77
4	652676.00	0.00	0.00	0.00	0.00	0.00	6171473.43
5	652676.00	0.00	0.00	0.00	0.00	0.00	5610504.94
6	652676.00	2021572.00	0.00	0.00	0.00	0.00	65557213.75
7	0.00	0.00	0.00	1064780.00	0.00	1542303.00	1404784.10
8	0.00	0.00	0.00	1064780.00	0.00	1542303.00	1277034.63
9	0.00	0.00	0.00	1064780.00	0.00	1542303.00	1160400.58
10	0.00	0.00	0.00	1064780.00	0.00	1542303.00	1055400.52
11	0.00	0.00	0.00	1064780.00	10501329.00	1542303.00	4824139.36
12	0.00	0.00	0.00	1064780.00	0.00	1542303.00	67221.84
13	0.00	0.00	0.00	1064780.00	0.00	1542303.00	792934.03
14	0.00	0.00	0.00	1064780.00	0.00	1542303.00	72062.76
15	0.00	0.00	0.00	1064780.00	0.00	1542303.00	655320.69
16	0.00	0.00	0.00	1064780.00	10501329.00	1542303.00	2995410.99
17	0.00	0.00	0.00	1064780.00	0.00	1542303.00	54157.35
18	0.00	0.00	0.00	1064780.00	0.00	1542303.00	492352.13
19	0.00	0.00	0.00	1064780.00	0.00	1542303.00	447592.85
20	0.00	0.00	0.00	1064780.00	0.00	1542303.00	406902.59
21	0.00	0.00	0.00	1064780.00	10501329.00	1542303.00	1459914.56
22	0.00	0.00	0.00	1064780.00	0.00	1542303.00	336213.13
23	0.00	0.00	0.00	1064780.00	0.00	1542303.00	305711.94
24	0.00	0.00	0.00	1064780.00	0.00	1542303.00	277919.94
25	0.00	0.00	0.00	1064780.00	0.00	1542303.00	252644.49
26	0.00	0.00	0.00	1064780.00	10501329.00	1542303.00	1154840.61
TOTAL	31177236.00	2021572.00	241456.00	21295600.00	42005316.00	30844060.00	297869413.53

NOTE: ANNUAL COSTS DISCOUNTED TO FID PT CONSTAT.

TOTAL LCC (FID PT COST + TOTAL ANN COST) = 297869403.53

DISCOUNT FACTOR COST (X) = 2052529.15

PROJECT EAST COAST WPR  
 MAJOR ALTERNATE PORTSMOUTH NH SITE-CONCRETE TANKS 10MM  
 MINOR ALTERNATE 200 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMBARK	SPARE PARTS	ANNUAL COST
1	544376.00	0.00	0.00	0.00	0.00	0.00	370722.55
2	4431559.40	0.00	0.00	0.00	0.00	0.00	731662.45
3	54901640.75	0.00	0.00	0.00	0.00	0.00	2911084.32
4	40591606.82	0.00	0.00	0.00	0.00	0.00	2911084.32
5	44450767.51	0.00	0.00	0.00	0.00	0.00	2911084.32
6	41115444.26	20037634.49	1070979.49	0.00	0.00	0.00	41621872.09
7	0.00	0.00	0.00	1320161.43	0.00	2082531.44	1611863.82
8	0.00	0.00	0.00	1452199.57	0.00	2246765.07	1611863.82
9	0.00	0.00	0.00	1597419.53	0.00	2471463.54	1611863.82
10	0.00	0.00	0.00	1757161.48	0.00	2714609.94	1611863.82
11	0.00	0.00	0.00	1932877.63	625444.10	290470.93	4113654.66
12	0.00	0.00	0.00	2126165.39	0.00	3245514.03	1611863.82
13	0.00	0.00	0.00	2338781.93	0.00	3618469.83	1611863.82
14	0.00	0.00	0.00	2572660.13	0.00	3940316.41	1611863.82
15	0.00	0.00	0.00	2829926.14	0.00	4374344.44	1611863.82
16	0.00	0.00	0.00	3112918.75	1072920.51	4816143.34	4113654.66
17	0.00	0.00	0.00	3424210.63	0.00	5297801.47	1611863.82
18	0.00	0.00	0.00	3766331.69	0.00	5827561.44	1611863.82
19	0.00	0.00	0.00	4143294.86	0.00	6410340.03	1611863.82
20	0.00	0.00	0.00	4557624.35	0.00	7051374.03	1611863.82
21	0.00	0.00	0.00	5013386.78	16222552.10	7754511.45	4113654.66
22	0.00	0.00	0.00	5514725.86	0.00	8532162.57	1611863.82
23	0.00	0.00	0.00	6066198.01	0.00	9345374.83	1611863.82
24	0.00	0.00	0.00	6672817.61	0.00	10323914.72	1611863.82
25	0.00	0.00	0.00	7340099.59	0.00	11356304.39	1611863.82
26	0.00	0.00	0.00	8074109.55	26126562.54	12441939.23	4113654.66
TOTAL	140074614.74	20037634.49	1070979.49	75613390.72	58676559.10	116986012.44	182086524.86

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL ICC (INVEST COST + TOTAL ANN COST) = 182086524.86

UNIFORM ANNUAL COST (\$) = 17147250.61



PROJECT EAST COAST RPR  
MAJOR ALTERNATE HANDSHELL HE STEEL TANKS JOHNS  
MINOR ALTERNATE WOG FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	Q-H ACCEPT TEST	Q-H STANDBY	U-H ENHANC	SPACE PARTS	ANNUAL COST
1	3568876.00	0.00	0.00	0.00	0.00	0.00	3568876.00
2	6764945.00	0.00	0.00	0.00	0.00	0.00	6764945.00
3	38429509.25	0.00	0.00	0.00	0.00	0.00	38429509.25
4	42272860.17	0.00	0.00	0.00	0.00	0.00	42272860.17
5	46499706.19	0.00	0.00	0.00	0.00	0.00	46499706.19
6	51149676.81	19776197.96	1070979.49	0.00	0.00	0.00	51149676.81
7	0.00	0.00	0.00	1387351.94	0.00	1266829.10	1387351.94
8	0.00	0.00	0.00	1926087.13	0.00	1393512.01	1926087.13
9	0.00	0.00	0.00	1678695.84	0.00	1532863.21	1678695.84
10	0.00	0.00	0.00	1846585.43	0.00	1666144.55	1846585.43
11	0.00	0.00	0.00	2031221.97	11200137.84	1454764.48	2031221.97
12	0.00	0.00	0.00	2234344.17	0.00	2040240.93	2234344.17
13	0.00	0.00	0.00	2457778.58	0.00	2244265.02	2457778.58
14	0.00	0.00	0.00	2703556.44	0.00	2466691.53	2703556.44
15	0.00	0.00	0.00	2973912.09	0.00	2715580.68	2973912.09
16	0.00	0.00	0.00	3271303.30	18037934.06	2987116.75	3271303.30
17	0.00	0.00	0.00	3598423.62	0.00	3245826.42	3598423.62
18	0.00	0.00	0.00	3958276.99	0.00	3614411.27	3958276.99
19	0.00	0.00	0.00	4354104.69	0.00	3975452.39	4354104.69
20	0.00	0.00	0.00	4769515.15	0.00	4373437.63	4769515.15
21	0.00	0.00	0.00	5264466.67	29050274.16	4810781.39	5264466.67
22	0.00	0.00	0.00	5745313.34	0.00	5291854.53	5745313.34
23	0.00	0.00	0.00	6374844.67	0.00	5821045.49	6374844.67
24	0.00	0.00	0.00	7012329.14	0.00	6403150.04	7012329.14
25	0.00	0.00	0.00	7713562.03	0.00	7043485.04	7713562.03
26	0.00	0.00	0.00	8484418.26	45785755.45	7747511.54	8484418.26
TOTAL	120683193.43	19776197.96	1070979.49	79660581.46	105074100.56	72557635.90	135721608.66

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 149721608.66

UNIFORM ANNUAL COST (\$)= 17866260.33

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE PORTSMOUTH NH SITE-- STEEL TANK 10 MHR  
 MINOR ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST	SALVAGE	INIT FILL	DOM ACCEPT	TEST	DOM STANDBY	DOM EXCHANGE	SPARE PARTS	ANNUAL COST
1	\$	58876.00	\$	0.00	\$	0.00	\$	0.00	\$ 37119.82
2	\$	10048240.80	\$	0.00	\$	0.00	\$	0.00	\$ 8736903.00
3	\$	44402916.25	\$	0.00	\$	0.00	\$	0.00	\$ 35028596.59
4	\$	44443207.87	\$	0.00	\$	0.00	\$	0.00	\$ 35028596.59
5	\$	53727528.64	\$	0.00	\$	0.00	\$	0.00	\$ 35028596.59
6	\$	59100261.53	\$	20035230.77	\$	1070979.49	\$	0.00	\$ 87538197.32
7	\$	0.00	\$	0.00	\$	0.00	\$	1726304.25	\$ 1572641.41
8	\$	0.00	\$	0.00	\$	0.00	\$	1898944.07	\$ 1672641.41
9	\$	0.00	\$	0.00	\$	0.00	\$	208832.98	\$ 1672641.41
10	\$	0.00	\$	0.00	\$	0.00	\$	2247716.28	\$ 1672641.41
11	\$	0.00	\$	0.00	\$	0.00	\$	2527487.90	\$ 5900114.18
12	\$	0.00	\$	0.00	\$	0.00	\$	2740236.69	\$ 1672641.41
13	\$	0.00	\$	0.00	\$	0.00	\$	3058260.34	\$ 1672641.41
14	\$	0.00	\$	0.00	\$	0.00	\$	3344044.40	\$ 1672641.41
15	\$	0.00	\$	0.00	\$	0.00	\$	3700495.04	\$ 1672641.41
16	\$	0.00	\$	0.00	\$	0.00	\$	4070544.54	\$ 5900114.18
17	\$	0.00	\$	0.00	\$	0.00	\$	4477599.00	\$ 1672641.41
18	\$	0.00	\$	0.00	\$	0.00	\$	4925354.90	\$ 1672641.41
19	\$	0.00	\$	0.00	\$	0.00	\$	5417444.79	\$ 1672641.41
20	\$	0.00	\$	0.00	\$	0.00	\$	5959644.26	\$ 1672641.41
21	\$	0.00	\$	0.00	\$	0.00	\$	6555632.69	\$ 5900114.18
22	\$	0.00	\$	0.00	\$	0.00	\$	7211217.96	\$ 1672641.41
23	\$	0.00	\$	0.00	\$	0.00	\$	7932359.76	\$ 1672641.41
24	\$	0.00	\$	0.00	\$	0.00	\$	875573.73	\$ 1672641.41
25	\$	0.00	\$	0.00	\$	0.00	\$	9594131.10	\$ 1672641.41
26	\$	0.00	\$	0.00	\$	0.00	\$	10557944.21	\$ 5900114.18
TOTAL	\$	216531050.92	\$	20035230.77	\$	1070979.49	\$	98874303.90	\$ 212094809.18

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 212094809.18

UNIFORM ANNUAL COST (\$)= 19973156.99

PROJECT EAST COAST RPH  
 MAJOR ALTERNATE HARPOWELL WE CONCRETE TANKS 10MMR  
 MINOR ALTERNATE NO6 FUEL OIL

YEAR	INVEST-SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM ENHANCED	SPACE PARTS	ANNUAL COST
1	5537876.00	0.00	0.00	0.00	0.00	0.00	5280154.34
2	4139413.00	0.00	0.00	0.00	0.00	0.00	7063474.09
3	47464229.25	0.00	0.00	0.00	0.00	0.00	37601312.95
4	42430718.72	0.00	0.00	0.00	0.00	0.00	37601430.68
5	57673790.60	0.00	0.00	0.00	0.00	0.00	37601430.68
6	63441164.66	19775325.06	1070979.49	0.00	0.00	0.00	49955465.91
7	0.00	0.00	0.00	1326796.44	0.00	1647447.54	1602745.46
8	0.00	0.00	0.00	1459476.08	0.00	1812632.34	1602745.46
9	0.00	0.00	0.00	1405423.69	0.00	1943445.57	1602745.46
10	0.00	0.00	0.00	1765966.06	0.00	2193485.13	1602745.46
11	0.00	0.00	0.00	1942582.67	598251.73	2412613.64	3804391.50
12	0.00	0.00	0.00	2136818.93	0.00	2453475.01	1602745.46
13	0.00	0.00	0.00	2350900.83	0.00	2914262.51	1602745.46
14	0.00	0.00	0.00	2385580.91	0.00	3211144.76	1602745.46
15	0.00	0.00	0.00	2444106.00	0.00	3532307.63	1602745.46
16	0.00	0.00	0.00	3126516.60	9634566.96	3455530.40	3804391.50
17	0.00	0.00	0.00	3441360.26	0.00	4274042.24	1602745.46
18	0.00	0.00	0.00	3785505.08	0.00	4701501.46	1602745.46
19	0.00	0.00	0.00	4164055.59	0.00	5171651.61	1602745.46
20	0.00	0.00	0.00	4380461.15	0.00	568816.77	1602745.46
21	0.00	0.00	0.00	5034507.27	1551661.59	6257644.45	3804391.50
22	0.00	0.00	0.00	5342357.99	0.00	6413404.24	1602745.46
23	0.00	0.00	0.00	6096593.79	0.00	7571615.12	1602745.46
24	0.00	0.00	0.00	6706253.17	0.00	8340946.43	1602745.46
25	0.00	0.00	0.00	7376876.49	0.00	9161496.24	1602745.46
26	0.00	0.00	0.00	8114566.34	24989442.51	10076045.92	3804391.50
TOTAL	240467597.23	19775325.06	1070979.49	75992265.34	56123155.12	94340464.35	215972444.50

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 215972998.50

UNIFORM ANNUAL COST (\$): 20338369.53

PROJECT EAST COAST RPR  
MAJIM ALTERNATE CANAVERAL PLA. SITE-STEEL TANKS 10MMB  
MINIM ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (MID PT UP CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	0=M ACCEPT TEST	0=M STANDBY	0=M EXCHANGE	SPARE PARTS	ANNUAL COST
1	\$ 465374.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 635131.64
2	\$ 10127100.40	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8788049.45
3	\$ 48672800.75	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 35241507.95
4	\$ 49139891.77	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 35241367.64
5	\$ 50053880.94	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 35241367.64
6	\$ 59459269.04	\$ 20010198.42	\$ 1355173.30	\$ 0.00	\$ 0.00	\$ 0.00	\$ 87904572.86
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1671567.01	\$ 0.00	\$ 2772386.67	\$ 2394473.45
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1538723.71	\$ 0.00	\$ 3049625.34	\$ 2394473.45
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2022566.04	\$ 0.00	\$ 3354567.87	\$ 2394473.45
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2224855.69	\$ 0.00	\$ 3690044.66	\$ 2394473.45
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2447341.26	\$ 11143959.26	\$ 4059051.33	\$ 6495650.32
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2692075.39	\$ 0.00	\$ 4464956.46	\$ 2394473.45
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2961282.93	\$ 0.00	\$ 4911452.10	\$ 2394473.45
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3257411.22	\$ 0.00	\$ 5402597.31	\$ 2394473.45
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3563132.34	\$ 0.00	\$ 5942457.05	\$ 2394473.45
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3941467.57	\$ 17947425.62	\$ 6537142.75	\$ 6495650.32
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4335614.33	\$ 0.00	\$ 7190857.03	\$ 2394473.45
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4764175.76	\$ 0.00	\$ 7909942.73	\$ 2394473.45
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5246093.34	\$ 0.00	\$ 8700937.00	\$ 2394473.45
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5770702.47	\$ 0.00	\$ 9571030.70	\$ 2394473.45
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6367772.94	\$ 29904504.43	\$ 10528153.77	\$ 6495650.32
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6962550.24	\$ 0.00	\$ 11540947.15	\$ 2394473.45
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7680805.26	\$ 0.00	\$ 12739041.84	\$ 2394473.45
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8468885.79	\$ 0.00	\$ 14012946.05	\$ 2394473.45
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9293774.36	\$ 0.00	\$ 15414240.65	\$ 2394473.45
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 10223151.60	\$ 46550994.88	\$ 16955664.72	\$ 6495650.32
TOTAL	\$ 21411845.30	\$ 20010198.42	\$ 1355173.30	\$ 9573899.70	\$ 108504673.20	\$ 158788445.20	\$ 227346173.73

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 227346173.73

UNIFORM ANNUAL COST (\$)= 21409391.57

PROJECT EAST COAST WPA  
 MAJOR ALTERNATE CALVERTON BY SITE-CONCRETE TANKS 10MMB  
 MINOR ALTERNATE NUB FUEL DTL

INVESTMENT COST (-10 PT OF CONSTRUCTION) = 0.00

YR	INVEST SALVAGE	INIT FILL	0-M ACCEPT TEST	U-M STANDBY	U-M EMPLOYED	SPARE PARTS	ANNUAL COST
1	1423776.00	0.00	0.00	0.00	0.00	0.00	1549968.00
2	11692438.60	0.00	0.00	0.00	0.00	0.00	10140327.55
3	51637136.75	0.00	0.00	0.00	0.00	0.00	40901198.86
4	52031852.62	0.00	0.00	0.00	0.00	0.00	40901198.86
5	42735037.89	0.00	0.00	0.00	0.00	0.00	40901198.86
6	69008501.68	19404125.07	1283273.69	0.00	0.00	0.00	33426321.45
7	0.00	0.00	0.00	1540316.52	0.00	33461172.32	2665247.45
8	0.00	0.00	0.00	1716348.18	0.00	3724789.56	2665247.45
9	0.00	0.00	0.00	1847982.99	0.00	4097268.51	2665247.45
10	0.00	0.00	0.00	2076781.29	0.00	4506995.36	2665247.45
11	0.00	0.00	0.00	2244458.42	6115051.32	4457694.90	4915700.05
12	0.00	0.00	0.00	2512905.36	0.00	5453400.39	2665247.45
13	0.00	0.00	0.00	2744195.90	0.00	5998410.63	2665247.45
14	0.00	0.00	0.00	3040615.44	0.00	6544641.91	2665247.45
15	0.00	0.00	0.00	3344677.04	0.00	7248581.10	2665247.45
16	0.00	0.00	0.00	3679144.74	9444351.30	7904417.21	4915700.05
17	0.00	0.00	0.00	4047059.22	0.00	8742454.94	2665247.45
18	0.00	0.00	0.00	4451765.14	0.00	9661144.63	2665247.45
19	0.00	0.00	0.00	4896941.65	0.00	10627259.31	2665247.45
20	0.00	0.00	0.00	5346635.62	0.00	11664945.24	2665247.45
21	0.00	0.00	0.00	5825299.40	15860864.25	12458943.77	4915700.05
22	0.00	0.00	0.00	6317829.34	0.00	14144642.14	2665247.45
23	0.00	0.00	0.00	7169612.27	0.00	15854370.36	2665247.45
24	0.00	0.00	0.00	7866573.50	0.00	17115307.40	2665247.45
25	0.00	0.00	0.00	8675230.85	0.00	18426454.13	2665247.45
26	0.00	0.00	0.00	9542733.94	25544046.92	20709521.95	4915700.05
TOTAL	253334741.54	19404125.07	1283273.69	89367128.08	57364357.79	143943018.19	250132973.05

NOTE: ANNUAL COSTS DISCOUNTED TO -10 PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 250132973.05

UNIFORM ANNUAL COST (\$) = 25555244.74

PROJECT EAST COAST RPH  
HATCH ALTERNATE PORTSMOUTH VA, STEEL TANKS 10MM  
PITON ALTERNATE NO. 6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EXHAUST	SPARE PARTS	ANNUAL COST
1	543376.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	327788.00
2	14378805.80 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	12477129.00
3	44162881.75 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	50616888.86
4	70579169.92 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	50616888.86
5	77437046.92 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	50616888.86
6	45400795.61 \$	20103419.17 \$	1070979.49 \$	1574277.38 \$	0.00 \$	0.00 \$	64103135.73
7	0.00 \$	0.00 \$	0.00 \$	1737205.12 \$	0.00 \$	1648261.61 \$	1824154.50
8	0.00 \$	0.00 \$	0.00 \$	1910925.63 \$	0.00 \$	1613109.77 \$	1824154.50
9	0.00 \$	0.00 \$	0.00 \$	2102018.19 \$	0.00 \$	1994420.75 \$	1824154.50
10	0.00 \$	0.00 \$	0.00 \$	2312220.01 \$	0.00 \$	2193462.63 \$	1824154.50
11	0.00 \$	0.00 \$	0.00 \$	2543462.01 \$	11539940.67 \$	2413244.11 \$	6071069.45
12	0.00 \$	0.00 \$	0.00 \$	2797786.21 \$	0.00 \$	2654574.02 \$	1824154.50
13	0.00 \$	0.00 \$	0.00 \$	3077568.44 \$	0.00 \$	2920031.42 \$	1824154.50
14	0.00 \$	0.00 \$	0.00 \$	3345321.32 \$	0.00 \$	3212034.57 \$	1824154.50
15	0.00 \$	0.00 \$	0.00 \$	3723853.45 \$	0.00 \$	3535238.02 \$	1824154.50
16	0.00 \$	0.00 \$	0.00 \$	4096238.60 \$	18585194.52 \$	3866361.62 \$	6071069.45
17	0.00 \$	0.00 \$	0.00 \$	4505862.68 \$	0.00 \$	4275218.01 \$	1824154.50
18	0.00 \$	0.00 \$	0.00 \$	4956448.94 \$	0.00 \$	4702739.41 \$	1824154.50
19	0.00 \$	0.00 \$	0.00 \$	5452093.44 \$	0.00 \$	5173013.79 \$	1824154.50
20	0.00 \$	0.00 \$	0.00 \$	5997303.22 \$	0.00 \$	5690315.17 \$	1824154.50
21	0.00 \$	0.00 \$	0.00 \$	6597033.54 \$	29931449.67 \$	6259366.88 \$	6071069.45
22	0.00 \$	0.00 \$	0.00 \$	7256736.90 \$	0.00 \$	6885261.35 \$	1824154.50
23	0.00 \$	0.00 \$	0.00 \$	7982810.59 \$	0.00 \$	7573509.99 \$	1824154.50
24	0.00 \$	0.00 \$	0.00 \$	8780651.85 \$	0.00 \$	8331190.43 \$	1824154.50
25	0.00 \$	0.00 \$	0.00 \$	9658716.81 \$	0.00 \$	9164309.48 \$	1824154.50
26	0.00 \$	0.00 \$	0.00 \$	10624588.48 \$	48205271.11 \$	10080740.43 \$	6071069.45
TOTAL	312501716.09 \$	20103419.17 \$	1070979.49 \$	101077699.61 \$	108262017.97 \$	94405326.56 \$	282229329.14

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 282229329.14

UNIFORM ANNUAL COST (\$) = 26577767.17

PROJECT EAST QUANT RPH  
 LOCATION PORTSMOUTH VA. SJIF-CONCRETE TANKS 10MMB  
 MIN. TEMPERATURE NO. 6 FUEL OIL

9.0

INITIAL COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVESTMENT	INIT FILL	U-M ACCEPT TEST	U-M STANDBY	U-M REPAIRS	SPARE PARTS	ANNUAL COST
1	343376.00	0.00	0.00	0.00	0.00	0.00	327768.00
2	14983359.40	0.00	0.00	0.00	0.00	0.00	13003624.27
3	66039210.75	0.00	0.00	0.00	0.00	0.00	52807435.23
4	74634681.02	0.00	0.00	0.00	0.00	0.00	52807435.23
5	80497050.01	0.00	0.00	0.00	0.00	0.00	52807435.23
6	80497050.01	20103415.95	1070979.49	0.00	0.00	0.00	65357666.23
7	0.00	0.00	0.00	1571102.02	0.00	2433845.72	2427391.91
8	0.00	0.00	0.00	1724278.22	0.00	3227274.29	3227391.91
9	0.00	0.00	0.00	1901106.04	0.00	3550001.72	2427391.91
10	0.00	0.00	0.00	2091216.65	0.00	3905001.69	2427391.91
11	0.00	0.00	0.00	2300338.31	6291041.21	4245502.08	4742630.45
12	0.00	0.00	0.00	2530372.14	0.00	4725052.24	2427391.91
13	0.00	0.00	0.00	2763309.34	0.00	519757.51	2427391.91
14	0.00	0.00	0.00	3061750.29	0.00	5717313.26	2427391.91
15	0.00	0.00	0.00	3367925.32	0.00	6249044.59	2427391.91
16	0.00	0.00	0.00	3704717.86	10131465.51	6917949.05	4742630.45
17	0.00	0.00	0.00	4075189.64	0.00	7609743.95	2427391.91
18	0.00	0.00	0.00	4482768.61	0.00	8370718.35	2427391.91
19	0.00	0.00	0.00	4930979.47	0.00	9207740.18	2427391.91
20	0.00	0.00	0.00	5424077.41	0.00	10128567.20	2427391.91
21	0.00	0.00	0.00	5966485.16	16317470.40	11141426.12	4742630.45
22	0.00	0.00	0.00	6563133.67	0.00	12255568.73	2427391.91
23	0.00	0.00	0.00	7214447.04	0.00	13481125.61	2427391.91
24	0.00	0.00	0.00	7941391.74	0.00	14829234.17	2427391.91
25	0.00	0.00	0.00	8735530.92	0.00	16312161.98	2427391.91
26	0.00	0.00	0.00	9609084.01	26279444.25	17943378.18	4742630.45
TOTAL	325495432.94	20103415.95	1070979.49	89988303.88	59019876.17	168036302.85	294920376.55

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 294920376.55

UNITED STATES ANNUAL COST (\$) = 2772914.40

PROJECT EAST CHAST RPR  
 MAJOR ALTERNATE NORTHVILLE NY CONC-ETE TANKS 20MM  
 MINOR ALTERNATE NOK FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	(M) ACCEPT TEST	(M) STANDBY	(M) EMERGENCY	SPARE PARTS	ANNUAL COST
1	\$ 5452376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5208560.73
2	\$ 17425979.60	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 15644425.27
3	\$ 79959220.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 63078272.73
4	\$ 47955142.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 43074272.73
5	\$ 96759656.20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 63078272.73
6	\$ 106425721.82	\$ 3944981.28	\$ 1070979.49	\$ 0.00	\$ 0.00	\$ 0.00	\$ 87106405.95
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1392119.21	\$ 0.00	\$ 33455031.44	\$ 2574005.32
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1531331.13	\$ 0.00	\$ 5725554.58	\$ 2574005.32
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1684464.24	\$ 0.00	\$ 4095444.04	\$ 2574005.32
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1852910.66	\$ 0.00	\$ 4505474.45	\$ 2574005.32
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2038201.73	\$ 11359649.35	\$ 4956024.53	\$ 6754542.23
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2242021.90	\$ 0.00	\$ 5451626.98	\$ 2574005.32
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2446224.09	\$ 0.00	\$ 596789.68	\$ 2574005.32
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2712846.50	\$ 0.00	\$ 6596464.65	\$ 2574005.32
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2964131.15	\$ 0.00	\$ 7256115.52	\$ 2574005.32
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3242544.27	\$ 1829485.30	\$ 7941727.67	\$ 6754542.23
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3610798.70	\$ 0.00	\$ 8779499.77	\$ 2574005.32
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3971874.57	\$ 0.00	\$ 9657449.75	\$ 2574005.32
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4369066.82	\$ 0.00	\$ 10623478.73	\$ 2574005.32
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4805973.07	\$ 0.00	\$ 11644044.60	\$ 2574005.32
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5286570.37	\$ 2946414.61	\$ 12854651.26	\$ 6754542.23
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5813227.41	\$ 0.00	\$ 14140114.38	\$ 2574005.32
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6346750.15	\$ 0.00	\$ 1554124.02	\$ 2574005.32
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7036425.17	\$ 0.00	\$ 17109540.42	\$ 2574005.32
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7740067.68	\$ 0.00	\$ 18820494.91	\$ 2574005.32
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8514074.45	\$ 47452241.55	\$ 20702544.40	\$ 6754542.23
TOTAL	\$ 394369095.62	\$ 3944981.28	\$ 1070979.49	\$ 79733626.49	\$ 108570932.81	\$ 193877673.94	\$ 365217402.14

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANNUAL COST) = 365217402.14

UNIFORM ANNUAL COST (\$) = 34392847.86



PROJECT EAST COAST RPR  
 MAJOR ALTERNATE WEST DEPTFORD IV NJ-STEEL TANKS 2UMMB  
 MINOR ALTERNATE NUB FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	Q-M ACCEPT TEST	Q-M STANDBY	Q-M EMERGO	SPARE PARTS	ANNUAL COST
1	7345376.00	0.00	0.00	0.00	0.00	0.00	7011495.27
2	14254207.00	0.00	0.00	0.00	0.00	0.00	15443896.64
3	41940262.25	0.00	0.00	0.00	0.00	0.00	44441078.41
4	40134284.47	0.00	0.00	0.00	0.00	0.00	44441078.41
5	99147717.32	0.00	0.00	0.00	0.00	0.00	44441078.41
6	104442449.05	39114904.21	1355173.30	0.00	0.00	0.00	88429449.27
7	0.00	0.00	0.00	1408526.39	0.00	2642114.40	2404455.59
8	0.00	0.00	0.00	1449379.03	0.00	2424331.34	2404455.59
9	0.00	0.00	0.00	2144316.93	0.00	3221144.47	2404455.59
10	0.00	0.00	0.00	2407148.63	0.00	3543780.92	2404455.59
11	0.00	0.00	0.00	2647863.49	19495474.47	3697609.01	9767502.00
12	0.00	0.00	0.00	2912649.84	0.00	4267369.91	2404455.59
13	0.00	0.00	0.00	3203914.42	0.00	4716106.91	2404455.59
14	0.00	0.00	0.00	3524304.31	0.00	5147717.60	2404455.59
15	0.00	0.00	0.00	3876736.94	0.00	5706449.36	2404455.59
16	0.00	0.00	0.00	4264410.63	32202911.59	6277154.29	9767502.00
17	0.00	0.00	0.00	4640831.69	0.00	6904452.12	2404455.59
18	0.00	0.00	0.00	5159936.86	0.00	7545337.33	2404455.59
19	0.00	0.00	0.00	5675930.55	0.00	8354071.07	2404455.59
20	0.00	0.00	0.00	6243523.60	0.00	9190354.17	2404455.59
21	0.00	0.00	0.00	6867875.96	51463111.14	10109393.49	9767502.00
22	0.00	0.00	0.00	7554663.56	0.00	11120333.34	2404455.59
23	0.00	0.00	0.00	8310129.92	0.00	12232366.73	2404455.59
24	0.00	0.00	0.00	9141162.91	0.00	13455603.40	2404455.59
25	0.00	0.00	0.00	10055257.20	0.00	14801163.74	2404455.59
26	0.00	0.00	0.00	11060782.92	83526059.12	14241240.12	9767502.00
TOTAL	405448340.10	39114406.21	1355173.30	103543344.18	187587556.51	152472847.74	383020535.86

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 383020535.86

UNIFORM ANNUAL COST (\$) = 36069344.83

PROJECT EAST COAST RPP  
 MAJIM ALTERNATE WEST DEPTFORD 11 "J"-STEEL TANKS 20MMH  
 MINUM ALTERNATE NOK FUEL OIL

INVESTMENT COST (MID PT UP CONSTRUCTION) = 0.00									
YEAR	INVEST-SALVAGE	INIT FILL	U-M ACCEPT TEST	U-M STANDY	U-M ENHANC	SPACE PARTS	ANNUAL COST		
1	\$ 7175376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6649222.55		
2	\$ 14461652.70	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 16367509.86		
3	\$ 84704053.63	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 66422957.41		
4	\$ 93176658.99	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 66422957.41		
5	\$ 102498324.89	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 66422957.41		
6	\$ 112743757.34	\$ 38445137.22	\$ 1355173.30	\$ 0.00	\$ 0.00	\$ 0.00	\$ 90649516.05		
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1804740.57	\$ 0.00	\$ 2272432.67	\$ 2196844.27		
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 195214.62	\$ 0.00	\$ 2499675.94	\$ 2196844.27		
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2143736.04	\$ 0.00	\$ 2749643.53	\$ 2196844.27		
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2402109.69	\$ 0.00	\$ 3024407.88	\$ 2196844.27		
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2642320.66	\$ 19675147.27	\$ 3327064.67	\$ 9437644.32		
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2906552.73	\$ 0.00	\$ 3654775.54	\$ 2196844.27		
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3197208.00	\$ 0.00	\$ 4025753.04	\$ 2196844.27		
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3516928.40	\$ 0.00	\$ 4424324.40	\$ 2196844.27		
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3868621.64	\$ 0.00	\$ 4871161.24	\$ 2196844.27		
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4255483.85	\$ 31647021.44	\$ 5354277.37	\$ 9437644.32		
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4641032.24	\$ 0.00	\$ 5844105.10	\$ 2196844.27		
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5149135.46	\$ 0.00	\$ 6443515.61	\$ 2196844.27		
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5664049.00	\$ 0.00	\$ 7131467.18	\$ 2196844.27		
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6230433.91	\$ 0.00	\$ 7845053.79	\$ 2196844.27		
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6853494.30	\$ 5103224.69	\$ 8624559.28	\$ 9437644.32		
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7538844.23	\$ 0.00	\$ 9442515.21	\$ 2196844.27		
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8292734.15	\$ 0.00	\$ 10441766.73	\$ 2196844.27		
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9122007.56	\$ 0.00	\$ 11445943.41	\$ 2196844.27		
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 10034208.32	\$ 0.00	\$ 12634537.75	\$ 2196844.27		
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 11037629.15	\$ 82147472.93	\$ 13497491.52	\$ 9437644.32		
TOTAL	\$ 419157823.60	\$ 38845137.22	\$ 1355173.30	\$ 103366515.00	\$ 144582466.54	\$ 130153580.02	\$ 387235436.32		

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 387235436.32

UNIFORM ANNUAL COST (\$)= 36466305.76

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE MOUTHVILLE NY-STEEL TANKS 20MMB  
 MINOR ALTERNATE NOB FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	U-M ACCEPT TEST	U-M STANDBY	U-M EXHAUST	SPARE PARTS	ANNUAL COST
1	5419376.00	0.00	0.00	0.00	0.00	0.00	5192131.64
2	20004798.00	0.00	0.00	0.00	0.00	0.00	17359535.45
3	99945471.00	0.00	0.00	0.00	0.00	0.00	70956231.82
4	99940018.10	0.00	0.00	0.00	0.00	0.00	70956231.82
5	116434019.91	0.00	0.00	0.00	0.00	0.00	70956231.82
6	119717821.90	39465987.22	1070979.49	0.00	0.00	0.00	94942395.77
7	0.00	0.00	0.00	1494557.95	0.00	2537994.52	2172806.05
8	0.00	0.00	0.00	1644013.75	0.00	2791798.37	2172806.05
9	0.00	0.00	0.00	1808415.12	0.00	3070974.21	2172806.05
10	0.00	0.00	0.00	1989256.63	0.00	3378076.03	2172806.05
11	0.00	0.00	0.00	2184182.30	0.00	3715883.64	2172806.05
12	0.00	0.00	0.00	2407000.52	0.00	4087472.00	2172806.05
13	0.00	0.00	0.00	2647700.58	0.00	44966219.20	2172806.05
14	0.00	0.00	0.00	2912470.64	0.00	4945841.12	2172806.05
15	0.00	0.00	0.00	3203717.70	0.00	5440425.23	2172806.05
16	0.00	0.00	0.00	3524089.47	0.00	5984467.75	2172806.05
17	0.00	0.00	0.00	3876498.42	0.00	6562914.53	2172806.05
18	0.00	0.00	0.00	4264148.26	0.00	7241205.98	2172806.05
19	0.00	0.00	0.00	4690563.08	0.00	7965326.58	2172806.05
20	0.00	0.00	0.00	5159619.39	0.00	8761459.24	2172806.05
21	0.00	0.00	0.00	5675581.33	0.00	9638045.16	2172806.05
22	0.00	0.00	0.00	6283139.46	0.00	10601649.68	2172806.05
23	0.00	0.00	0.00	6967453.41	0.00	11662034.65	2172806.05
24	0.00	0.00	0.00	7354198.75	0.00	12826239.11	2172806.05
25	0.00	0.00	0.00	8309618.62	0.00	14111061.92	2172806.05
26	0.00	0.00	0.00	9140580.49	0.00	15522168.11	2172806.05
TOTAL	402441104.91	39465987.22	1070979.49	65600805.66	18610042.34	145363868.04	403060303.23

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 403060303.23

UNIFORM ANNUAL COST (\$) = 37956547.57

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE CALVERTON NY CONCRETE TANKS 20MMB  
 MINOR ALTERNATE NO# FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	D=H ACCEPT TEST	D=H STANDBY	D=H EXCHANGE	SPARE PARTS	ANNUAL COST
1	1623536.00	0.00	0.00	0.00	0.00	0.00	1549738.91
2	1998198.40	0.00	0.00	0.00	0.00	0.00	17339742.00
3	88440927.00	0.00	0.00	0.00	0.00	0.00	70873759.09
4	9825019.70	0.00	0.00	0.00	0.00	0.00	70873759.09
5	108707521.67	0.00	0.00	0.00	0.00	0.00	70873759.09
6	119578273.84	39075916.67	1283273.69	0.00	0.00	0.00	94794555.55
7	0.00	0.00	0.00	1630915.00	0.00	4965094.25	3548813.95
8	0.00	0.00	0.00	1794006.50	0.00	5443608.07	3548813.95
9	0.00	0.00	0.00	1973407.15	0.00	6031964.44	3548813.95
10	0.00	0.00	0.00	2170747.67	0.00	6635165.77	3548813.95
11	0.00	0.00	0.00	2367822.65	11412445.15	7298682.35	7948822.64
12	0.00	0.00	0.00	2626604.92	0.00	8026550.58	3548813.95
13	0.00	0.00	0.00	2849265.41	0.00	8831405.64	3548813.95
14	0.00	0.00	0.00	3178191.95	0.00	9714546.20	3548813.95
15	0.00	0.00	0.00	3496011.15	0.00	10646000.42	3548813.95
16	0.00	0.00	0.00	3845612.26	19185144.25	11754600.40	7948822.64
17	0.00	0.00	0.00	4230173.49	0.00	12930086.94	3548813.95
18	0.00	0.00	0.00	4533190.63	0.00	14223067.04	3548813.95
19	0.00	0.00	0.00	5118509.92	0.00	15645373.40	3548813.95
20	0.00	0.00	0.00	5230360.91	0.00	17209911.18	3548813.95
21	0.00	0.00	0.00	6193397.00	30897446.67	18330902.30	7948822.64
22	0.00	0.00	0.00	6812736.70	0.00	20823992.53	3548813.95
23	0.00	0.00	0.00	7494010.37	0.00	22906391.79	3548813.95
24	0.00	0.00	0.00	8243411.41	0.00	25197030.96	3548813.95
25	0.00	0.00	0.00	9067752.55	0.00	2716734.06	3548813.95
26	0.00	0.00	0.00	9374527.60	49761373.25	30488407.47	7948822.64
TOTAL	438557266.61	39075916.67	1283273.69	93410655.84	111756799.32	285521499.65	415137627.55

NOTES ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 415137627.55

UNIFORM ANNUAL COST (\$) = 39093079.95

PROJECT EAST COAST HPR  
 MAJUM ALTERNATE BRONKVILLE ME WINE 20MMH  
 MINOR ALTERNATE NUG FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EXCHANGE	SPARE PARTS	ANNUAL COST
1	\$ 6522876.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6264503.45
2	\$ 23099184.20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 20044750.04
3	\$ 104124092.75	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 82144626.14
4	\$ 114580902.02	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 82144626.14
5	\$ 125988992.23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 82144626.14
6	\$ 134594491.45	\$ 39001276.17	\$ 1355173.30	\$ 0.00	\$ 0.00	\$ 0.00	\$ 106063797.95
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1846322.72	\$ 0.00	\$ 2732243.44	\$ 2484579.23
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2074954.99	\$ 0.00	\$ 3005512.63	\$ 2484579.23
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2242450.49	\$ 0.00	\$ 3305063.45	\$ 2484579.23
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2510695.54	\$ 0.00	\$ 3636669.40	\$ 2484579.23
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2761765.10	\$ 27257742.91	\$ 4000336.78	\$ 12512575.09
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3037941.61	\$ 0.00	\$ 4400370.46	\$ 2484579.23
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3341735.77	\$ 0.00	\$ 4800407.50	\$ 2484579.23
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3675909.34	\$ 0.00	\$ 5244444.25	\$ 2484579.23
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4043500.24	\$ 0.00	\$ 5656493.04	\$ 2484579.23
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4447450.31	\$ 43864657.34	\$ 6442582.38	\$ 12512575.09
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4892635.34	\$ 0.00	\$ 7044440.62	\$ 2484579.23
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5381898.87	\$ 0.00	\$ 7745524.68	\$ 2484579.23
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5920088.76	\$ 0.00	\$ 8573077.15	\$ 2484579.23
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6512097.63	\$ 0.00	\$ 9452584.87	\$ 2484579.23
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7163307.40	\$ 70647640.32	\$ 10375443.35	\$ 12512575.09
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7879338.14	\$ 0.00	\$ 11413427.64	\$ 2484579.23
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8667601.95	\$ 0.00	\$ 12554770.48	\$ 2484579.23
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9534362.14	\$ 0.00	\$ 13610247.50	\$ 2484579.23
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 10487798.36	\$ 0.00	\$ 15141272.26	\$ 2484579.23
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 11536374.19	\$ 113774411.73	\$ 16710399.48	\$ 12512575.09
TOTAL	\$ 512920542.65	\$ 39001276.17	\$ 1355173.30	\$ 108039132.92	\$ 255530942.30	\$ 156491555.64	\$ 46867457.91

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN. COST) = 46867457.91

UNIFORM ANNUAL COST (\$) = 44135500.34

PROJECT EAST COAST GPR  
 MAJOR ALTERNATE PORTLAND MC. STEELHINE 20MMB  
 MINOR ALTERNATE NO. 6 FUEL OIL

INVESTMENT COST (-10 PT OF CONSTRUCTION) = 0.00

YEAR	INVEST SALVAGE	INIT FILL	U-M ACCEPT TEST	U-M STANDBY	U-M EMERGO	SPARE FACTS	ANNUAL COST
1	5001375.00	0.00	0.00	0.00	0.00	0.00	4774039.77
2	2299100.00	0.00	0.00	0.00	0.00	0.00	1986416.52
3	14517726.00	0.00	0.00	0.00	0.00	0.00	8139490.36
4	11394498.69	0.00	0.00	0.00	0.00	0.00	8139440.36
5	12844500.56	0.00	0.00	0.00	0.00	0.00	8139490.36
6	157429553.41	39443470.38	148783.54	0.00	0.00	0.00	105654917.45
7	0.00	0.00	0.00	2413328.44	0.00	3257115.48	3055326.27
8	0.00	0.00	0.00	2654661.31	0.00	3257115.48	3055326.27
9	0.00	0.00	0.00	2920127.44	0.00	3941110.21	3055326.27
10	0.00	0.00	0.00	3212140.18	0.00	4555221.23	3055326.27
11	0.00	0.00	0.00	3333350.20	2799445.95	4768743.36	13359477.41
12	0.00	0.00	0.00	3486689.62	0.00	5245417.69	3055326.27
13	0.00	0.00	0.00	4275358.58	0.00	5770179.46	3055326.27
14	0.00	0.00	0.00	4702890.44	0.00	6347147.41	3055326.27
15	0.00	0.00	0.00	5173183.88	0.00	6941917.15	3055326.27
16	0.00	0.00	0.00	5690502.27	4509264.97	7640104.66	13359477.41
17	0.00	0.00	0.00	6259552.50	0.00	8444119.75	3055326.27
18	0.00	0.00	0.00	685507.74	0.00	9292931.72	3055326.27
19	0.00	0.00	0.00	7374038.52	0.00	10222224.90	3055326.27
20	0.00	0.00	0.00	8311460.37	0.00	11244447.34	3055326.27
21	0.00	0.00	0.00	9164610.81	7262217.64	12346442.12	13359477.41
22	0.00	0.00	0.00	10041071.89	0.00	13605741.34	3055326.27
23	0.00	0.00	0.00	11049179.08	0.00	14966353.47	3055326.27
24	0.00	0.00	0.00	12198096.99	0.00	16462945.42	3055326.27
25	0.00	0.00	0.00	13417906.68	0.00	18109294.46	3055326.27
26	0.00	0.00	0.00	14759697.35	11695874.59	19900224.46	13359477.41
TOTAL	51674028.64	39443470.38	148783.56	134223386.29	26247254.15	185551310.23	476800954.64

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL IIC (INVEST COST + TOTAL ANN COST) = 476800954.64

UNIFORM ANNUAL COST (\$) = 44900770.36

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE PORTSMOUTH NH SITE-CONCRETE TANKS 10MHD  
 MINOR ALTERNATE NUK FUEL HTL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00									
YEAR	INVEST SALVAGE	INIT FILL	U-M ACCEPT TEST	U-M STANDBY	U-M EMPANDED	SHARE PARTS	ANNUAL COST		
1	\$ 344376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 344376.00		
2	\$ 4531559.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4531559.00		
3	\$ 3400060.75	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3400060.75		
4	\$ 40591606.82	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 40591606.82		
5	\$ 44450767.51	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 44450767.51		
6	\$ 44114444.24	\$ 20037634.49	\$ 1070979.49	\$ 0.00	\$ 0.00	\$ 0.00	\$ 70224442.23		
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1520101.43	\$ 0.00	\$ 2042331.68	\$ 3362713.31		
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1452199.57	\$ 0.00	\$ 2246745.07	\$ 369494.65		
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1597419.53	\$ 0.00	\$ 2471463.54	\$ 404443.11		
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1757161.48	\$ 0.00	\$ 2714609.94	\$ 4475771.42		
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1932877.63	\$ 6234444.10	\$ 2940410.43	\$ 1117784.66		
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2126165.39	\$ 0.00	\$ 3249514.03	\$ 5413445.42		
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2338781.93	\$ 0.00	\$ 3618469.43	\$ 5957251.76		
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2572460.13	\$ 0.00	\$ 3940314.61	\$ 6552976.94		
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 282426.14	\$ 0.00	\$ 4378344.44	\$ 7208274.63		
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3112918.75	\$ 10072427.51	\$ 4816163.34	\$ 18002030.61		
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3424210.63	\$ 0.00	\$ 5297401.67	\$ 8722012.30		
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3766631.69	\$ 0.00	\$ 5827561.44	\$ 9594213.53		
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4143294.86	\$ 0.00	\$ 6410340.03	\$ 10553634.49		
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4557624.35	\$ 0.00	\$ 7051374.03	\$ 11608994.34		
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5013386.78	\$ 1622244.10	\$ 7754511.43	\$ 28992450.31		
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5514725.46	\$ 0.00	\$ 8532162.57	\$ 14044448.04		
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6066198.01	\$ 0.00	\$ 9345374.43	\$ 19051576.84		
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 672617.81	\$ 0.00	\$ 10323916.72	\$ 16996734.52		
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7340099.59	\$ 0.00	\$ 11356306.39	\$ 18694407.97		
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4074109.55	\$ 26126542.34	\$ 12441939.23	\$ 46692631.16		
TOTAL	\$ 140074614.74	\$ 20037634.49	\$ 1070979.49	\$ 75613390.72	\$ 58476559.10	\$ 11494612.64	\$ 452464195.17		

NOTE: A. MAJOR COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANNUAL COST) = 452464195.17

UNIFORM ANNUAL COST (\$/YR) = 16757433.15

PROJECT EAST COAST RPR  
MAJOR ALTERNATE HANDEWELL RE STEEL TANKS 10MMB  
MINOR ALTERNATE NHA FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	U-M ACCEPT TEST	U-M STANDBY	U-M EMERGED	SPARE PARTS	ANNUAL COST
1	3566876.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	3566876.00
2	8764965.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	8764965.00
3	36429509.25 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	36429509.25
4	42272460.17 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	42272460.17
5	46499706.19 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	0.00 \$	46499706.19
6	51186676.81 \$	19776197.96 \$	1070979.49 \$	0.00 \$	0.00 \$	0.00 \$	71996854.25
7	0.00 \$	0.00 \$	0.00 \$	1387351.94 \$	0.00 \$	1266424.10 \$	2654161.04
8	0.00 \$	0.00 \$	0.00 \$	1526087.13 \$	0.00 \$	1393512.01 \$	2919594.14
9	0.00 \$	0.00 \$	0.00 \$	1674695.48 \$	0.00 \$	1532463.21 \$	3211359.05
10	0.00 \$	0.00 \$	0.00 \$	1846565.43 \$	0.00 \$	1686149.53 \$	3532714.96
11	0.00 \$	0.00 \$	0.00 \$	2031221.97 \$	11200137.86 \$	1854764.48 \$	15086124.33
12	0.00 \$	0.00 \$	0.00 \$	2254344.17 \$	0.00 \$	2040240.93 \$	4274945.10
13	0.00 \$	0.00 \$	0.00 \$	2457778.58 \$	0.00 \$	2244265.02 \$	4702043.61
14	0.00 \$	0.00 \$	0.00 \$	2703556.44 \$	0.00 \$	2446491.53 \$	5172247.97
15	0.00 \$	0.00 \$	0.00 \$	2973912.09 \$	0.00 \$	2715560.48 \$	5689472.77
16	0.00 \$	0.00 \$	0.00 \$	3271303.30 \$	18037436.04 \$	2947114.75 \$	24296354.10
17	0.00 \$	0.00 \$	0.00 \$	3594433.62 \$	0.00 \$	3245424.42 \$	6884262.05
18	0.00 \$	0.00 \$	0.00 \$	3958276.99 \$	0.00 \$	3614411.27 \$	7572684.25
19	0.00 \$	0.00 \$	0.00 \$	4354104.69 \$	0.00 \$	3975452.39 \$	8329957.08
20	0.00 \$	0.00 \$	0.00 \$	4749515.15 \$	0.00 \$	4373437.43 \$	9162952.79
21	0.00 \$	0.00 \$	0.00 \$	5268466.67 \$	29050271.18 \$	4810761.59 \$	39129521.24
22	0.00 \$	0.00 \$	0.00 \$	5795313.34 \$	0.00 \$	5291459.53 \$	11067172.87
23	0.00 \$	0.00 \$	0.00 \$	6374844.67 \$	0.00 \$	5821045.44 \$	12195890.16
24	0.00 \$	0.00 \$	0.00 \$	7012329.14 \$	0.00 \$	6403150.04 \$	13415479.17
25	0.00 \$	0.00 \$	0.00 \$	7713562.05 \$	0.00 \$	7043465.04 \$	14757027.09
26	0.00 \$	0.00 \$	0.00 \$	8484918.26 \$	46785755.45 \$	7747411.54 \$	63018465.23
TOTAL	190443193.43 \$	19776197.96 \$	1070979.49 \$	79460581.46 \$	103074100.56 \$	72557635.94 \$	468622646.88

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 468622646.88

UNIFORM ANNUAL COST (\$) = 17366395.88



PROJECT EAST COAST WPH  
 MAJUM ALTERNATE HANPSWELL PE CONCRETE TANKS 10MMB  
 MINUM ALTERNATE NUA FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	UOM ACCEPT	TEST	UOM STANDAY	UOM ENHANCEN	SPARE PARTS	ANNUAL COST
1	\$ 5537876.00	\$ 0.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5537876.00
2	\$ 6139813.00	\$ 0.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6139813.00
3	\$ 67664229.25	\$ 0.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 67664229.25
4	\$ 52430718.72	\$ 0.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 52430718.72
5	\$ 47474790.60	\$ 0.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 47474790.60
6	\$ 43441149.66	\$ 19775325.06	\$	1070979.49	\$ 0.00	\$ 0.00	\$ 0.00	\$ 43441149.66
7	\$ 0.00	\$ 0.00	\$	0.00	\$ 1326796.44	\$ 0.00	\$ 1647447.54	\$ 1326796.44
8	\$ 0.00	\$ 0.00	\$	0.00	\$ 1459476.08	\$ 0.00	\$ 1812632.34	\$ 1459476.08
9	\$ 0.00	\$ 0.00	\$	0.00	\$ 1605423.64	\$ 0.00	\$ 1993495.57	\$ 1605423.64
10	\$ 0.00	\$ 0.00	\$	0.00	\$ 1765966.06	\$ 0.00	\$ 2153245.13	\$ 1765966.06
11	\$ 0.00	\$ 0.00	\$	0.00	\$ 1942562.67	\$ 0.00	\$ 2412613.64	\$ 1942562.67
12	\$ 0.00	\$ 0.00	\$	0.00	\$ 2136818.93	\$ 0.00	\$ 2653475.01	\$ 2136818.93
13	\$ 0.00	\$ 0.00	\$	0.00	\$ 2350500.83	\$ 0.00	\$ 2919262.51	\$ 2350500.83
14	\$ 0.00	\$ 0.00	\$	0.00	\$ 2585530.91	\$ 0.00	\$ 3211144.76	\$ 2585530.91
15	\$ 0.00	\$ 0.00	\$	0.00	\$ 2844106.00	\$ 0.00	\$ 3532307.63	\$ 2844106.00
16	\$ 0.00	\$ 0.00	\$	0.00	\$ 3128516.60	\$ 0.00	\$ 3685534.40	\$ 3128516.60
17	\$ 0.00	\$ 0.00	\$	0.00	\$ 3441368.26	\$ 0.00	\$ 4274092.24	\$ 3441368.26
18	\$ 0.00	\$ 0.00	\$	0.00	\$ 3785503.08	\$ 0.00	\$ 4701401.46	\$ 3785503.08
19	\$ 0.00	\$ 0.00	\$	0.00	\$ 4164055.59	\$ 0.00	\$ 5171451.61	\$ 4164055.59
20	\$ 0.00	\$ 0.00	\$	0.00	\$ 4580461.15	\$ 0.00	\$ 5644416.77	\$ 4580461.15
21	\$ 0.00	\$ 0.00	\$	0.00	\$ 5038507.27	\$ 15516601.89	\$ 6257448.45	\$ 5038507.27
22	\$ 0.00	\$ 0.00	\$	0.00	\$ 5542337.99	\$ 0.00	\$ 6883444.29	\$ 5542337.99
23	\$ 0.00	\$ 0.00	\$	0.00	\$ 6096593.79	\$ 0.00	\$ 7571415.12	\$ 6096593.79
24	\$ 0.00	\$ 0.00	\$	0.00	\$ 6706253.17	\$ 0.00	\$ 8324446.63	\$ 6706253.17
25	\$ 0.00	\$ 0.00	\$	0.00	\$ 7376878.49	\$ 0.00	\$ 9161456.29	\$ 7376878.49
26	\$ 0.00	\$ 0.00	\$	0.00	\$ 8114566.34	\$ 24989642.51	\$ 10078045.92	\$ 8114566.34
TOTAL	\$ 25047597.23	\$ 19775325.06	\$	1070979.49	\$ 75992265.34	\$ 56123154.12	\$ 94380469.55	\$ 25047597.23

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN. COST) = 482229791.59

UNIFORM ANNUAL COST (\$) = 17460362.65

PROJECT EAST COAST WPP  
MAJOR ALTERNATE PROPOSED WITH NITF-- STEEL TANK 10 MM  
MINOR ALTERNATE OIL & FUEL OIL

YEAR	INVEST	SAVAGE	INIT FILL	U-M ACCEPT	TEST	U-M STANDBY	U-M EMERGENCY	SPARE PARTS	ANNUAL COST
1	388876.00	\$	0.00	\$	0.00	\$	0.00	\$	388876.00
2	1006240.60	\$	0.00	\$	0.00	\$	0.00	\$	1006240.60
3	44402916.25	\$	0.00	\$	0.00	\$	0.00	\$	44402916.25
4	48843207.87	\$	0.00	\$	0.00	\$	0.00	\$	48843207.87
5	53727528.66	\$	0.00	\$	0.00	\$	0.00	\$	53727528.66
6	59100241.53	\$	20035230.77	\$	1070979.49	\$	0.00	\$	80206491.79
7	0.00	\$	0.00	\$	0.00	\$	0.00	\$	3104290.40
8	0.00	\$	0.00	\$	0.00	\$	0.00	\$	3414719.44
9	0.00	\$	0.00	\$	0.00	\$	0.00	\$	3756191.38
10	0.00	\$	0.00	\$	0.00	\$	0.00	\$	4131410.52
11	0.00	\$	0.00	\$	0.00	\$	0.00	\$	4949490.73
12	0.00	\$	0.00	\$	0.00	\$	0.00	\$	5499434.80
13	0.00	\$	0.00	\$	0.00	\$	0.00	\$	6049363.74
14	0.00	\$	0.00	\$	0.00	\$	0.00	\$	6649322.16
15	0.00	\$	0.00	\$	0.00	\$	0.00	\$	7249301.57
16	0.00	\$	0.00	\$	0.00	\$	0.00	\$	7849280.98
17	0.00	\$	0.00	\$	0.00	\$	0.00	\$	8449260.39
18	0.00	\$	0.00	\$	0.00	\$	0.00	\$	9049240.80
19	0.00	\$	0.00	\$	0.00	\$	0.00	\$	9649220.21
20	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1024920.62
21	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1084900.03
22	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1144880.44
23	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1204860.85
24	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1264840.26
25	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1324820.67
26	0.00	\$	0.00	\$	0.00	\$	0.00	\$	1384800.08
TOTAL	21641040.92	\$	20035230.77	\$	1070979.49	\$	107766390.43	\$	523201840.48

NOTE: ANNUAL COSTS DISCOUNTED TO MID-PT CONST.

TOTAL ILC (INVEST COST + TOTAL ANN COST) = 523201840.48

UNFILL ANNUAL COST (\$)= 19377407.80

PROJECT PART CHART RPH  
 MAJOR ALTERNATE CANAVEHVAL FLA. SITE-STEEL TANKS 10MMH  
 MINOR ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00									
YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EMBARKED	SHARE PARTS	ANNUAL COST		
1	\$ 665376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$	665376.00	\$
2	\$ 10127180.80	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$	10127180.80	\$
3	\$ 44672806.75	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$	44672806.75	\$
4	\$ 49139491.77	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$	49139491.77	\$
5	\$ 54053840.94	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$	54053840.94	\$
6	\$ 59449269.04	\$ 20010196.62	\$ 1355173.30	\$ 0.00	\$ 0.00	\$ 0.00	\$	80824840.94	\$
7	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1671567.01	\$ 0.00	\$ 2772386.67	\$	4443953.68	\$
8	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1438723.71	\$ 0.00	\$ 3049625.34	\$	4888349.05	\$
9	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2022596.08	\$ 0.00	\$ 334587.67	\$	5377163.96	\$
10	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2224855.69	\$ 0.00	\$ 3690046.66	\$	5914902.35	\$
11	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2447341.26	\$ 11143930.26	\$ 4059051.33	\$	17650331.85	\$
12	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2642075.39	\$ 0.00	\$ 4444956.46	\$	7157031.84	\$
13	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2961262.93	\$ 0.00	\$ 4911452.10	\$	7872735.03	\$
14	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3257411.22	\$ 0.00	\$ 5402597.31	\$	8660006.53	\$
15	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3543152.34	\$ 0.00	\$ 5942457.05	\$	9524009.39	\$
16	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3941467.57	\$ 17947475.62	\$ 6537142.75	\$	28424035.94	\$
17	\$ 0.00	\$ 0.00	\$ 0.00	\$ 433614.33	\$ 0.00	\$ 7190857.03	\$	11526471.36	\$
18	\$ 0.00	\$ 0.00	\$ 0.00	\$ 4769175.76	\$ 0.00	\$ 7909942.73	\$	12679114.49	\$
19	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5246093.34	\$ 0.00	\$ 8700937.00	\$	13947030.34	\$
20	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5770702.67	\$ 0.00	\$ 9571030.70	\$	15341733.38	\$
21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6347772.96	\$ 26904504.43	\$ 10528133.77	\$	45780415.15	\$
22	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6982550.24	\$ 0.00	\$ 11540947.15	\$	18563497.38	\$
23	\$ 0.00	\$ 0.00	\$ 0.00	\$ 7680805.26	\$ 0.00	\$ 12739041.66	\$	20419847.12	\$
24	\$ 0.00	\$ 0.00	\$ 0.00	\$ 8448885.79	\$ 0.00	\$ 14012944.05	\$	22461431.83	\$
25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9293774.36	\$ 0.00	\$ 15414240.65	\$	24708015.02	\$
26	\$ 0.00	\$ 0.00	\$ 0.00	\$ 10223151.80	\$ 46550999.48	\$ 16955464.72	\$	73729614.40	\$
TOTAL	\$ 214114405.50	\$ 20010196.62	\$ 1355173.30	\$ 95738999.70	\$ 104546875.20	\$ 154744445.20	\$	598558095.32	\$

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 598558095.32

UNIFORM ANNUAL COST (\$) = 22168414.35

PROJECT EAST COAST RRR  
 MAJOR ALTERNATE CALVERTON NY SITE-CONCRETE TANKS 10MMB  
 MINOR ALTERNATE NUG FUEL OIL

YEAR	INVEST	SAVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMERGENCY	SPARE PARTS	ANNUAL CUST
1	\$ 1423776.00	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1623776.00
2	\$ 11492434.50	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 11692434.50
3	\$ 51447138.75	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 51847138.75
4	\$ 57031852.62	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 57031852.62
5	\$ 42735037.49	\$	0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 62735037.49
6	\$ 49004541.64	\$	19849125.07	\$ 1283273.69	\$ 0.00	\$ 0.00	\$ 0.00	\$ 60140940.44
7	\$ 0.00	\$	0.00	\$ 0.00	\$ 1540316.52	\$ 0.00	\$ 3346172.32	\$ 4946488.85
8	\$ 0.00	\$	0.00	\$ 0.00	\$ 1716348.18	\$ 0.00	\$ 3724789.56	\$ 5441137.73
9	\$ 0.00	\$	0.00	\$ 0.00	\$ 1847982.99	\$ 0.00	\$ 4097264.51	\$ 5945251.51
10	\$ 0.00	\$	0.00	\$ 0.00	\$ 2076781.29	\$ 0.00	\$ 4506995.36	\$ 6583776.66
11	\$ 0.00	\$	0.00	\$ 0.00	\$ 2284459.42	\$ 6115051.32	\$ 4957644.90	\$ 13357205.64
12	\$ 0.00	\$	0.00	\$ 0.00	\$ 2512905.36	\$ 0.00	\$ 5453464.59	\$ 7466364.75
13	\$ 0.00	\$	0.00	\$ 0.00	\$ 2764195.90	\$ 0.00	\$ 5994410.43	\$ 8763066.73
14	\$ 0.00	\$	0.00	\$ 0.00	\$ 3040615.89	\$ 0.00	\$ 6544641.91	\$ 9639307.40
15	\$ 0.00	\$	0.00	\$ 0.00	\$ 3344677.04	\$ 0.00	\$ 7254561.10	\$ 10603238.14
16	\$ 0.00	\$	0.00	\$ 0.00	\$ 3679144.74	\$ 9848351.50	\$ 7484417.21	\$ 21511913.26
17	\$ 0.00	\$	0.00	\$ 0.00	\$ 4047059.22	\$ 0.00	\$ 8724258.94	\$ 12429918.15
18	\$ 0.00	\$	0.00	\$ 0.00	\$ 4451765.14	\$ 0.00	\$ 9661144.43	\$ 14112909.97
19	\$ 0.00	\$	0.00	\$ 0.00	\$ 484941.65	\$ 0.00	\$ 10627259.31	\$ 15324200.97
20	\$ 0.00	\$	0.00	\$ 0.00	\$ 5346635.62	\$ 0.00	\$ 11689445.24	\$ 17076621.06
21	\$ 0.00	\$	0.00	\$ 0.00	\$ 5925299.40	\$ 1546044.25	\$ 12854943.77	\$ 34645151.42
22	\$ 0.00	\$	0.00	\$ 0.00	\$ 6517829.34	\$ 0.00	\$ 14144482.14	\$ 20662711.09
23	\$ 0.00	\$	0.00	\$ 0.00	\$ 7169612.27	\$ 0.00	\$ 1559370.56	\$ 22726982.63
24	\$ 0.00	\$	0.00	\$ 0.00	\$ 7846573.50	\$ 0.00	\$ 17115307.40	\$ 23001840.90
25	\$ 0.00	\$	0.00	\$ 0.00	\$ 8675230.85	\$ 0.00	\$ 18826438.13	\$ 27502044.99
26	\$ 0.00	\$	0.00	\$ 0.00	\$ 9542753.94	\$ 25544075.92	\$ 20709521.95	\$ 55796362.81
TOTAL	\$ 24344781.54	\$	\$ 19849125.07	\$ 1283273.69	\$ 89367128.08	\$ 57368357.79	\$ 193943014.19	\$ 615749644.35

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INITIAL COST + TOTAL ANNUAL COST) = 615749644.35

UNIFORM ANNUAL COST (\$) = 22405543.46

AD-A144 650

EAST COAST REGIONAL PETROLEUM RESERVE (RPR) VOLUME 2  
POTENTIAL STORAGE SI... (U) ARMY ENGINEER DIV HUNTSVILLE  
AL R E SHANNON ET AL. 30 SEP 80 HNDTR-80-45-SP-VOL-2

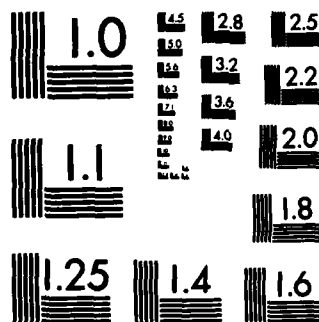
3/3

UNCLASSIFIED

F/G 21/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

PROJECT EAST CHAST SPR  
MAJOR ALTERNATE PINTSMOUTH VA. SITE-STEEL TANKS 10MM  
MINOR ALTERNATE NO. 6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M ENHANCE	SPARE PARTS	ANNUAL COST
1	\$ 343376.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 343376.00
2	\$ 18378405.80	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 18378405.80
3	\$ 6416281.75	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6416281.75
4	\$ 70579169.92	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 70579169.92
5	\$ 77637086.92	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 77637086.92
6	\$ 10815471.65	\$ 20103.19	\$ 1070979.49	\$ 1579277.38	\$ 0.00	\$ 0.00	\$ 10815471.65
7	\$ 338548.73	\$ 0.00	\$ 0.00	\$ 1737205.12	\$ 0.00	\$ 1640281.61	\$ 338548.73
8	\$ 3724035.40	\$ 0.00	\$ 0.00	\$ 1910925.63	\$ 0.00	\$ 1813109.77	\$ 3724035.40
9	\$ 4094838.94	\$ 0.00	\$ 0.00	\$ 2102018.19	\$ 0.00	\$ 1994420.75	\$ 4094838.94
10	\$ 4506062.84	\$ 0.00	\$ 0.00	\$ 2312220.01	\$ 0.00	\$ 2195882.83	\$ 4506062.84
11	\$ 4896637.79	\$ 0.00	\$ 0.00	\$ 2543482.01	\$ 11539946.67	\$ 2413249.11	\$ 4896637.79
12	\$ 5492360.23	\$ 0.00	\$ 0.00	\$ 2797786.21	\$ 0.00	\$ 2654574.02	\$ 5492360.23
13	\$ 597596.26	\$ 0.00	\$ 0.00	\$ 3077564.84	\$ 0.00	\$ 2920031.42	\$ 597596.26
14	\$ 6597355.88	\$ 0.00	\$ 0.00	\$ 3345321.32	\$ 0.00	\$ 3212034.57	\$ 6597355.88
15	\$ 7257091.47	\$ 0.00	\$ 0.00	\$ 3723833.45	\$ 0.00	\$ 3535238.02	\$ 7257091.47
16	\$ 8781080.66	\$ 0.00	\$ 0.00	\$ 4096238.80	\$ 10585194.52	\$ 3486581.82	\$ 8781080.66
17	\$ 9659188.75	\$ 0.00	\$ 0.00	\$ 4505862.68	\$ 0.00	\$ 4275218.01	\$ 9659188.75
18	\$ 10625107.62	\$ 0.00	\$ 0.00	\$ 4956448.94	\$ 0.00	\$ 4702739.81	\$ 10625107.62
19	\$ 11687618.59	\$ 0.00	\$ 0.00	\$ 5452093.84	\$ 0.00	\$ 5175013.74	\$ 11687618.59
20	\$ 14142018.25	\$ 0.00	\$ 0.00	\$ 5997303.22	\$ 29931644.67	\$ 5690315.17	\$ 14142018.25
21	\$ 15556220.07	\$ 0.00	\$ 0.00	\$ 6547033.54	\$ 0.00	\$ 6259546.68	\$ 15556220.07
22	\$ 17111842.08	\$ 0.00	\$ 0.00	\$ 7256738.90	\$ 0.00	\$ 6885281.55	\$ 17111842.08
23	\$ 18823026.29	\$ 0.00	\$ 0.00	\$ 7982410.59	\$ 0.00	\$ 7573809.49	\$ 18823026.29
24	\$ 68910550.03	\$ 0.00	\$ 0.00	\$ 8780631.65	\$ 0.00	\$ 8331190.43	\$ 68910550.03
25	\$ 9164309.48	\$ 0.00	\$ 0.00	\$ 9658716.81	\$ 0.00	\$ 9164309.48	\$ 9164309.48
26	\$ 94805324.56	\$ 0.00	\$ 0.00	\$ 10624588.44	\$ 48205221.11	\$ 10080740.43	\$ 94805324.56
TOTAL	\$ 312501716.00	\$ 20103.19	\$ 1070979.49	\$ 101077699.61	\$ 108262016.97	\$ 94805324.56	\$ 637421559.80

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 637421559.80

UNIFORM ANNUAL COST (\$) = 25608205.92

PROJECT EAST COAST RRR  
 MAJOR ALTERNATE PORTSMOUTH VA. SITE-CONCRETE TANKS 10MPG  
 MINOR ALTERNATE NO.6 FUEL OIL

0.0

YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT-TEST	0-M STANDBY	0-M EXCHANGE	SPACE PARTS	ANNUAL COST
1	343376.00	0.00	0.00	0.00	0.00	0.00	343376.00
2	14985359.40	0.00	0.00	0.00	0.00	0.00	14985359.40
3	66939710.75	0.00	0.00	0.00	0.00	0.00	66939710.75
4	73633661.82	0.00	0.00	0.00	0.00	0.00	73633661.82
5	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
6	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
7	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
8	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
9	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
10	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
11	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
12	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
13	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
14	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
15	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
16	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
17	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
18	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
19	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
20	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
21	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
22	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
23	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
24	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
25	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
26	80997050.01	0.00	0.00	0.00	0.00	0.00	80997050.01
TOTAL	324994932.99	2010345.95	1070979.49	89988303.88	59019876.17	168038302.85	664217211.33

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN. COST) = 664217211.33

UNIFORM ANNUAL COST (\$)= 24600637.46



PROJECT EAST COAST RPR  
 MAJOR ALTERNATE KNOXVILLE NY CONCRETE TANKS 20M+H  
 MINOR ALTERNATE NOA FUEL OIL

YEAR	INVESTMENT SALVAGE	INIT FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMERGENCY	SPARE PARTS	ANNUAL COST
1	5452376.00	0.00	0.00	0.00	0.00	0.00	5452376.00
2	17825979.60	0.00	0.00	0.00	0.00	0.00	17825979.60
3	79959220.00	0.00	0.00	0.00	0.00	0.00	79959220.00
4	87455142.00	0.00	0.00	0.00	0.00	0.00	87455142.00
5	96750656.20	0.00	0.00	0.00	0.00	0.00	96750656.20
6	106125721.42	39469481.28	1070979.49	0.00	0.00	0.00	106966642.59
7	0.00	0.00	0.00	1392119.21	0.00	3345031.44	4777150.65
8	0.00	0.00	0.00	1531331.13	0.00	3723534.58	5254865.71
9	0.00	0.00	0.00	1684464.24	0.00	4095644.64	5780352.28
10	0.00	0.00	0.00	1852910.66	0.00	4505476.45	635837.51
11	0.00	0.00	0.00	2038201.73	1155968.35	4936024.53	18353915.61
12	0.00	0.00	0.00	2242021.90	0.00	5451626.98	7693644.89
13	0.00	0.00	0.00	2466224.09	0.00	5946789.68	8463013.78
14	0.00	0.00	0.00	2712846.50	0.00	6596460.45	9309315.15
15	0.00	0.00	0.00	2984131.15	0.00	7256115.52	10240246.67
16	0.00	0.00	0.00	3282548.27	1829445.30	7981727.07	29559144.64
17	0.00	0.00	0.00	3610798.70	0.00	8779499.77	12390694.47
18	0.00	0.00	0.00	3971878.57	0.00	9657489.75	13629766.32
19	0.00	0.00	0.00	4369066.82	0.00	10623674.73	14992745.15
20	0.00	0.00	0.00	4805973.07	0.00	11666044.40	16492019.66
21	0.00	0.00	0.00	5246370.37	2946410.61	12854651.26	47605330.24
22	0.00	0.00	0.00	5615227.41	0.00	14140114.34	19955343.79
23	0.00	0.00	0.00	6396750.15	0.00	15554124.02	21950874.17
24	0.00	0.00	0.00	7036425.17	0.00	17109540.42	23145945.99
25	0.00	0.00	0.00	7740067.68	0.00	18204444.91	26560362.59
26	0.00	0.00	0.00	8514074.45	47452241.55	20702544.40	75668660.40
TOTAL	310448095.62	39469481.28	1070979.49	79733626.89	106570952.41	193877675.98	815092290.07

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 815092290.07

UNIFORM ANNUAL COST (\$) = 30164603.34

PROJECT EAST COAST WPM  
MAJINW ALTERNATE WEST DEPTFORN 11 NJ-RTEEL TANKS 20MMH  
MINIW ALTERNATE NDA FUEL OIL

INVESTMENT COST (MIN PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INTY FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EXCHANGE	SPARE PARTS	ANNUAL COST
1	7175376.00	0.00	0.00	0.00	0.00	0.00	7175376.00
2	1861652.70	0.00	0.00	0.00	0.00	0.00	1861652.70
3	84706053.63	0.00	0.00	0.00	0.00	0.00	84706053.63
4	9317658.99	0.00	0.00	0.00	0.00	0.00	9317658.99
5	102494324.89	0.00	0.00	0.00	0.00	0.00	102494324.89
6	112741757.36	38845137.22	1355173.30	0.00	0.00	0.00	152944067.91
7	0.00	0.00	0.00	1804740.57	0.00	2272432.67	407173.24
8	0.00	0.00	0.00	1945218.62	0.00	2499675.44	4484890.56
9	0.00	0.00	0.00	2183736.08	0.00	2749643.53	4933379.62
10	0.00	0.00	0.00	2402109.69	0.00	3024607.88	5426717.58
11	0.00	0.00	0.00	2642320.66	19675147.27	3327068.67	25644536.61
12	0.00	0.00	0.00	2906552.73	0.00	3659775.54	6566328.27
13	0.00	0.00	0.00	3197208.00	0.00	4025733.09	7222961.10
14	0.00	0.00	0.00	3516928.80	0.00	4428324.40	7945257.20
15	0.00	0.00	0.00	3868621.68	0.00	4871161.24	8739742.92
16	0.00	0.00	0.00	4255483.85	31687021.44	5556277.37	41300782.65
17	0.00	0.00	0.00	4681032.24	0.00	5894105.10	10575137.34
18	0.00	0.00	0.00	5149135.46	0.00	6483515.61	11632651.07
19	0.00	0.00	0.00	5644049.00	0.00	7131467.18	12795916.18
20	0.00	0.00	0.00	6230453.91	0.00	7845053.89	14073507.80
21	0.00	0.00	0.00	6853499.30	51032264.89	8629559.28	66513323.47
22	0.00	0.00	0.00	7538849.23	0.00	9492515.21	17031364.44
23	0.00	0.00	0.00	8292734.15	0.00	10841764.73	18734500.88
24	0.00	0.00	0.00	9122007.56	0.00	11885943.41	20607950.97
25	0.00	0.00	0.00	10034208.32	0.00	12634537.75	22668746.06
26	0.00	0.00	0.00	11037684.15	82187972.93	13897991.52	107123593.60
TOTAL	419147823.60	38845137.22	1355173.30	103366515.00	184582406.54	130153580.02	877460635.68

NOTES ANNUAL COSTS DISCOUNTED TO MIN PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 877460635.68

UNIFORM ANNUAL COST (\$) = 32494542.06

PROJECT EAST COAST RPR  
 MAIN ALTERNATE WEST DEPIFORM IV NJ-STEEL TANKS 20MMH  
 MINOR ALTERNATE NUB FUEL OIL

YEAR	INVEST-SALVAGE	INIT FILL	0-M ACCEPT TEST	0-M STANDBY	0-M EXCHANGE	SPARE PARTS	ANNUAL COST
1	7345376.00	0.00	0.00	0.00	0.00	0.00	7345376.00
2	14254207.00	0.00	0.00	0.00	0.00	0.00	16254207.00
3	11940262.25	0.00	0.00	0.00	0.00	0.00	61940262.25
4	90134288.47	0.00	0.00	0.00	0.00	0.00	90134288.47
5	99147717.32	0.00	0.00	0.00	0.00	0.00	99147717.32
6	13462489.05	39118906.21	1355173.30	0.00	0.00	0.00	149536566.57
7	0.00	0.00	0.00	1404526.39	0.00	2662119.40	4470645.79
8	0.00	0.00	0.00	1949379.03	0.00	2928331.34	4917710.37
9	0.00	0.00	0.00	2188316.93	0.00	3221164.47	5409481.41
10	0.00	0.00	0.00	2407148.63	0.00	3543280.92	5950429.55
11	0.00	0.00	0.00	2647863.49	19495474.47	3847609.01	26540944.97
12	0.00	0.00	0.00	2912449.84	0.00	4247369.91	720019.75
13	0.00	0.00	0.00	3203914.22	0.00	4716106.91	7920021.73
14	0.00	0.00	0.00	3524306.31	0.00	5147717.60	8712023.40
15	0.00	0.00	0.00	3876736.94	0.00	5706449.56	9543226.29
16	0.00	0.00	0.00	4264410.63	32202911.54	627134.29	42744440.51
17	0.00	0.00	0.00	4690851.69	0.00	6904452.12	11595773.61
18	0.00	0.00	0.00	5159936.86	0.00	759337.33	12753274.20
19	0.00	0.00	0.00	5675930.35	0.00	8354871.07	14030881.62
20	0.00	0.00	0.00	6243523.60	0.00	9190354.17	15433841.78
21	0.00	0.00	0.00	6887873.86	51863111.14	10109393.99	68840341.09
22	0.00	0.00	0.00	7554663.26	0.00	11120333.39	1867498.95
23	0.00	0.00	0.00	8310129.92	0.00	12232366.73	20342446.65
24	0.00	0.00	0.00	9141142.91	0.00	13459603.40	22596746.31
25	0.00	0.00	0.00	10055257.20	0.00	14801163.74	24856420.94
26	0.00	0.00	0.00	11060782.92	83526054.12	16281260.12	110868122.15
TOTAL	405844340.10	39118906.21	1355173.30	103543348.18	187587556.31	152472887.29	890006211.38

NOTES: ANNUAL COSTS DISCOUNTED TO MIN PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 890006211.38

UNIFORM ANNUAL COST (\$) = 32963193.01

PURCHASER EAST CHAST. HPM  
MAJOR ALTERNATE MINOTVILLE NY-STEEL TANKS 20MMB  
MINOR ALTERNATE LUB. FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INTL FILL	DOM ACCEPT TEST	DOM STANDBY	DOM EMERGEN	SPARE PARTS	ANNUAL COST
1	5459376.00	0.00	0.00	0.00	0.00	0.00	5459376.00
2	20004798.00	0.00	0.00	0.00	0.00	0.00	20004798.00
3	49455071.00	0.00	0.00	0.00	0.00	0.00	49455071.00
4	49455071.00	0.00	0.00	0.00	0.00	0.00	49455071.00
5	104254019.91	0.00	0.00	0.00	0.00	0.00	104254019.91
6	11071721.90	3945507.22	1070979.49	0.00	0.00	0.00	160257388.61
7	0.00	0.00	0.00	1494557.95	0.00	2537944.32	4032556.47
8	0.00	0.00	0.00	164013.75	0.00	2791794.37	2955812.12
9	0.00	0.00	0.00	1404015.12	0.00	3070979.21	4479393.33
10	0.00	0.00	0.00	1404556.83	0.00	3378076.03	5367332.86
11	0.00	0.00	0.00	2148162.30	19434921.58	3715483.64	25740987.52
12	0.00	0.00	0.00	2407100.52	0.00	4047472.00	6454472.52
13	0.00	0.00	0.00	2647700.58	0.00	4496219.20	7143919.78
14	0.00	0.00	0.00	2912470.64	0.00	4945541.12	7856311.75
15	0.00	0.00	0.00	3203717.70	0.00	5440425.23	8644142.93
16	0.00	0.00	0.00	3524089.87	3194750.54	584447.75	41456117.80
17	0.00	0.00	0.00	3676498.42	0.00	6542914.93	10459412.94
18	0.00	0.00	0.00	4264744.26	0.00	7241205.94	11505356.24
19	0.00	0.00	0.00	4690363.08	0.00	7963326.56	12555449.66
20	0.00	0.00	0.00	515619.39	0.00	8761459.24	13921376.63
21	0.00	0.00	0.00	567581.33	51451445.74	9634045.10	66765492.20
22	0.00	0.00	0.00	6263139.46	0.00	10601449.68	16844495.14
23	0.00	0.00	0.00	6667453.41	0.00	11642030.65	18529440.06
24	0.00	0.00	0.00	7554194.75	0.00	12628236.11	20382436.86
25	0.00	0.00	0.00	4309616.62	0.00	14111061.42	22420460.55
26	0.00	0.00	0.00	9140580.44	82463748.38	15522164.11	107526492.98
TOTAL	442481108.91	3945507.22	1070979.49	35600805.86	186100042.34	145363662.04	90082833.85

NOTES: ANNUAL COSTS DISCOUNTED TO MID PT CONSTR.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 90082833.85

INTERIM ANNUAL COST (%) = 33351216.07

END-OF-FILE ENCOUNTERED, FILETYPE = INPUT  
ERROR NUMBER 0065 DETECTED BY I-PCB AT ADDRESS 000133  
CALLED FROM LFC AT LINE 0210

PROJECT EAST COAST RPR  
 MAJOR ALTERNATE CALVERTON NY CONCRETE TANKS 20MMB  
 MINOR ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST-SALVAGE	INIT FILL	O=M ACCEPT TEST	O=M STANDBY	O=M EMHAKCO	SPARE PARTS	ANNUAL COST
1	1623536.00	0.00	0.00	0.00	0.00	0.00	1623536.00
2	1998198.40	0.00	0.00	0.00	0.00	0.00	1998198.40
3	89840927.00	0.00	0.00	0.00	0.00	0.00	89840927.00
4	98825019.70	0.00	0.00	0.00	0.00	0.00	98825019.70
5	108707521.67	0.00	0.00	0.00	0.00	0.00	108707521.67
6	119378273.84	39075916.87	1283273.69	0.00	0.00	0.00	159937464.40
7	0.00	0.00	0.00	163015.00	0.00	4985098.25	6616013.25
8	0.00	0.00	0.00	1798006.50	0.00	5483608.07	7277614.57
9	0.00	0.00	0.00	1973407.15	0.00	6031988.88	8005376.03
10	0.00	0.00	0.00	2170747.87	0.00	6635165.77	8605913.63
11	0.00	0.00	0.00	2307822.65	11912465.15	7298682.35	21598970.15
12	0.00	0.00	0.00	2626804.92	0.00	8026550.58	10655155.50
13	0.00	0.00	0.00	2889265.41	0.00	8831405.64	11720671.05
14	0.00	0.00	0.00	3178191.95	0.00	9714946.20	12492738.15
15	0.00	0.00	0.00	3496011.15	0.00	10686000.82	14182011.97
16	0.00	0.00	0.00	3845812.26	14165144.25	11754800.90	34785357.42
17	0.00	0.00	0.00	4230173.49	0.00	12930060.99	17180234.48
18	0.00	0.00	0.00	4653190.83	0.00	14223067.09	1876257.93
19	0.00	0.00	0.00	5118509.92	0.00	15645375.80	20763863.72
20	0.00	0.00	0.00	5630360.91	0.00	17209911.18	22440272.09
21	0.00	0.00	0.00	6193397.00	30897865.67	18930902.30	56022165.97
22	0.00	0.00	0.00	6812736.70	0.00	20823992.53	27638729.23
23	0.00	0.00	0.00	7494010.37	0.00	22906391.79	30400402.16
24	0.00	0.00	0.00	8243811.41	0.00	25197030.96	33404042.37
25	0.00	0.00	0.00	9067752.55	0.00	27716738.06	36784466.61
26	0.00	0.00	0.00	9974527.80	49761325.25	30408807.47	90224258.52
TOTAL	438557266.61	39075916.87	1283273.69	93410655.84	111756799.32	285521499.65	969605411.98

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 969605411.98

UNIFORM ANNUAL COST (\$)= 35911311.55

PROJECT EAST CHART RPH  
 MAJOR ALTERNATE BRIDGAVILLE ME WILE 20MMH  
 MINOR ALTERNATE NUG FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 6.00

YEAR	INVEST-SALVAGE	INIT FILL	DISM ACCEPT TEST	DISM STANDBY	DISM EMBARKED	SPARE PARTS	ANNUAL COST
1	3 6362876.00	3 0.00	3 0.00	3 0.00	3 0.00	3 0.00	3 6362876.00
2	3 23099188.20	3 0.00	3 0.00	3 0.00	3 0.00	3 0.00	3 23099188.20
3	3 104128092.75	3 0.00	3 0.00	3 0.00	3 0.00	3 0.00	3 104128092.75
4	3 114540902.02	3 0.00	3 0.00	3 0.00	3 0.00	3 0.00	3 114540902.02
5	3 125994992.23	3 0.00	3 0.00	3 0.00	3 0.00	3 0.00	3 125994992.23
6	3 138594491.45	3 39001276.17	3 1355173.30	3 0.00	3 0.00	3 0.00	3 176950440.92
7	3 0.00	3 0.00	3 0.00	3 1846322.72	3 0.00	3 2732283.84	3 4618606.37
8	3 0.00	3 0.00	3 0.00	3 2074954.99	3 0.00	3 3005512.23	3 5080467.22
9	3 0.00	3 0.00	3 0.00	3 2242450.49	3 0.00	3 3306063.45	3 5546513.95
10	3 0.00	3 0.00	3 0.00	3 2510695.54	3 0.00	3 3636669.40	3 6147363.34
11	3 0.00	3 0.00	3 0.00	3 2761765.10	3 27237742.91	3 4000336.78	3 33999844.79
12	3 0.00	3 0.00	3 0.00	3 3037941.61	3 0.00	3 4400370.46	3 7434312.06
13	3 0.00	3 0.00	3 0.00	3 3341735.77	3 0.00	3 4840407.50	3 8182143.27
14	3 0.00	3 0.00	3 0.00	3 3675909.34	3 0.00	3 5324448.25	3 900357.59
15	3 0.00	3 0.00	3 0.00	3 4043500.28	3 0.00	3 5856493.08	3 9903393.35
16	3 0.00	3 0.00	3 0.00	3 4447450.31	3 43866657.34	3 6442582.38	3 54757090.03
17	3 0.00	3 0.00	3 0.00	3 4892635.34	3 0.00	3 7086440.62	3 11979475.96
18	3 0.00	3 0.00	3 0.00	3 5381898.87	3 0.00	3 7795524.68	3 13177423.55
19	3 0.00	3 0.00	3 0.00	3 5920088.76	3 0.00	3 8575077.15	3 14493165.91
20	3 0.00	3 0.00	3 0.00	3 6512097.43	3 0.00	3 9432584.47	3 15948442.50
21	3 0.00	3 0.00	3 0.00	3 7163307.40	3 70647690.32	3 10375843.39	3 8818841.07
22	3 0.00	3 0.00	3 0.00	3 7879638.14	3 0.00	3 11413427.69	3 19293065.03
23	3 0.00	3 0.00	3 0.00	3 8667601.95	3 0.00	3 12554770.46	3 2122372.41
24	3 0.00	3 0.00	3 0.00	3 9534362.14	3 0.00	3 13810247.50	3 23344609.65
25	3 0.00	3 0.00	3 0.00	3 10487798.36	3 0.00	3 15191272.26	3 25679070.61
26	3 0.00	3 0.00	3 0.00	3 11536378.19	3 113778411.73	3 16710399.48	3 142025749.40
TOTAL	3 512920542.65	3 39001276.17	3 1355173.30	3 108039132.92	3 255530902.30	3 156441535.84	3 1073338583.19

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 1073338583.19

UNIFORM ANNUAL COST (\$) = 39753260.86

PROJECT EAST COAST RPR  
MAJOR ALTERNATE PORTLAND ME, SITE-MINE 20MHB  
MINOR ALTERNATE NO.6 FUEL OIL

INVESTMENT COST (MID PT OF CONSTRUCTION) = 0.00

YEAR	INVEST	SALVAGE	INIT FILL	Q=M ACCEPT TEST	Q=M STANDBY	Q=M ENHARGO	SPARE PARTS	ANNUAL COST
1	\$	5001375.00	\$	0.00	\$	0.00	\$	5001375.00
2	\$	22091086.90	\$	0.00	\$	0.00	\$	22091086.90
3	\$	103177726.08	\$	0.00	\$	0.00	\$	103177726.08
4	\$	113495498.69	\$	0.00	\$	0.00	\$	113495498.69
5	\$	120845088.56	\$	0.00	\$	0.00	\$	120845088.56
6	\$	137429553.41	\$	1487853.56	\$	0.00	\$	170261077.35
7	\$	0.00	\$	0.00	\$	0.00	\$	5670444.36
8	\$	0.00	\$	0.00	\$	0.00	\$	6237488.77
9	\$	0.00	\$	0.00	\$	0.00	\$	6861237.65
10	\$	0.00	\$	0.00	\$	0.00	\$	7547361.41
11	\$	0.00	\$	0.00	\$	0.00	\$	9132307.31
12	\$	0.00	\$	0.00	\$	0.00	\$	10045338.04
13	\$	0.00	\$	0.00	\$	0.00	\$	11050091.84
14	\$	0.00	\$	0.00	\$	0.00	\$	12155101.03
15	\$	0.00	\$	0.00	\$	0.00	\$	58463274.10
16	\$	0.00	\$	0.00	\$	45092662.97	\$	14707672.24
17	\$	0.00	\$	0.00	\$	0.00	\$	16178439.47
18	\$	0.00	\$	0.00	\$	0.00	\$	17796243.42
19	\$	0.00	\$	0.00	\$	0.00	\$	19575911.76
20	\$	0.00	\$	0.00	\$	0.00	\$	94153687.57
21	\$	0.00	\$	0.00	\$	72622184.64	\$	23688853.23
22	\$	0.00	\$	0.00	\$	0.00	\$	26055538.55
23	\$	0.00	\$	0.00	\$	0.00	\$	28661092.40
24	\$	0.00	\$	0.00	\$	0.00	\$	31527201.64
25	\$	0.00	\$	0.00	\$	0.00	\$	151636876.39
26	\$	0.00	\$	0.00	\$	116958754.59	\$	19920224.46
TOTAL	\$	506740288.64	\$	39443670.38	\$	1487853.56	\$	1135119107.25

NOTE: ANNUAL COSTS DISCOUNTED TO MID PT CONST.

TOTAL LCC (INVEST COST + TOTAL ANN COST) = 1135119107.25

UNIFORM ANNUAL COST (\$) = 42041468.42

END

FILMED

DTIC